

**EGLIN AIR FORCE BASE
Florida**

**FINAL
ENVIRONMENTAL ASSESSMENT
FOR CAMP RUDDER MASTER PLAN
AT EGLIN AIR FORCE BASE, FL**



JUNE 2005

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FINAL FINDING OF NO SIGNIFICANT IMPACT

FOR

THE CAMP RUDDER MASTER PLAN ON EGLIN AIR FORCE BASE, FLORIDA

**RCS 01-272,- 273, 04-734, -864, 05-032, -034, -035, -036,-037, -065, -079, -080, -081,
-085, -086,- 443**

Pursuant to the Council on Environmental Quality regulations for implementing the procedural provisions of the National Environmental Policy Act (40 Code of Federal Regulations 1500-1508), 32 CFR Part 989, the Department of the Air Force has conducted an Environmental Assessment (EA) of the probable environmental consequences for the Camp Rudder Master Plan on Eglin Air Force Base.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Proposed Action

The Proposed Action is to initiate activities under the Ranger Training Brigade (RTB) Recapitalization Master Plan for the 6th Ranger Training Battalion (6th RTB) at Camp James Rudder on Eglin Air Force Base (AFB). These activities include constructing six pre-engineered metal buildings, replacing the gymnasium, renovating the student and cadre barracks, and building a Controlled Environment Storage Facility (Boat House), a consolidated Company Operations Facility and a consolidated Maintenance and Storage Facility. Infrastructure needed to support daily operation includes utility line connections to the buildings and stormwater abatement. Buildings 6016, 6018, 6019, 6020, 6022, 6024, 6025, 6030, 6034, 6041, 6042, 6043, 6045, 6046, 6044, and 6070 would be demolished. The Proposed Action would bring the total impervious area from new construction to approximately 47,304 square feet (approximately 1 acre). A total of 41,150 square feet would be demolished and 65,030 square feet would be renovated.

Upgrade and Renovation Alternative

Under the Upgrade and Renovation Alternative, 19 buildings on Camp Rudder will be upgraded through renovations. Buildings to be upgraded and renovated include the Dive Locker, the IHIC CP Administration Office, the S-4 Administration Office, the Vehicle Maintenance Shop, the Communication Building, the Warehouse, the Vehicle Service Rack, two latrines, four administration buildings, a storage facility, the Gymnasium, the Junior Enlisted Quarters, the Student Dorms, the Enlisted Quarters, and the NCO Quarters. There will be no construction or demolition of old buildings.

No Action Alternative

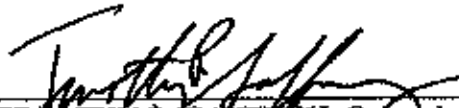
Under the No Action Alternative, the 6th RTB would not construct new buildings, demolish old buildings, or renovate dormitories. The 6th RTB would continue to operate in aged, deteriorated facilities, some of which are physically deteriorated to the point that they will soon fall down, and are beyond repair without total replacement. However, given the age and dilapidated condition of existing structures, it is likely that these buildings would be demolished or renovated at some point in the future, even if the Proposed Action or the Upgrade and Renovation Alternative is not implemented. Although it is unknown when this might occur, these activities would be

conducted and evaluated on an as-needed basis. Additionally, under the No Action Alternative, permanent party personnel and students will be housed in marginal facilities that could result in lower morale and decreased retention rates. Improvements in keeping with the Army's Communities of Excellence program will not be provided that will directly affect the welfare of soldiers working and residing at Camp Rudder.

Analysis was conducted to determine the potential impacts to the human and natural environment resulting from the Proposed Action, the Upgrade and Renovation Alternative, and the No Action Alternative. No significant impacts to resources have been identified. A detailed discussion of issues analyzed and management strategies used to reduce potential impacts is given in the Camp Rudder Master Plan EA, Chapter 4: Environmental Consequences, and Chapter 5: Plans, Permits, and Management Actions.

FINDING OF NO SIGNIFICANT IMPACT

After a review of the EA by the Environmental Impact Analysis Process Environmental Assessment Working Group of the Environmental Protection Committee, it has been concluded that the proposed Camp Rudder Master Plan on Eglin AFB, Florida, would not have a significant adverse impact of a long-term nature to the quality of the human or natural environment. Therefore, an Environmental Impact Statement will not be prepared. This analysis fulfills the requirements of the National Environmental Policy Act, the President's Council on Environmental Quality, and codified at 32 CFR Part 989.


TIMOTHY P. GAFANEY, Colonel, USAF
Commander, 96th Civil Engineer Group

24 June 05
Date

**FINAL
ENVIRONMENTAL ASSESSMENT
FOR CAMP RUDDER MASTER PLAN
AT EGLIN AIR FORCE BASE, FL**

Submitted to:

**96th Civil Engineer Group
Environmental Management Division
96 CEG/CEV
Eglin AFB, FL 32542**

JUNE 2005



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LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS

| | |
|---------------------------|--|
| 96 AMDS/SGPB | 96 th Aerospace Medicine Squadron, Bioenvironmental Flight |
| 96 CEG/CEV | 96 th Civil Engineer Group, Environmental Management Division |
| 96 CEG/CEVCE | 96 th Civil Engineer Group, Environmental Engineering Section |
| 96 CEG/CEVCP | 96 th Civil Engineer Group, Pollution Prevention Section |
| 96 CEG/CEVH | 96 th Civil Engineer Group, Cultural Resources Branch |
| 96 CEG/CEVR | 96 th Civil Engineer Group, Environmental Restoration Branch |
| 96 CEG/CEVSN | 96 th Civil Engineer Group, Natural Resources Section |
| 96 CEG/CEVSP | 96 th Civil Engineer Group, Environmental Analysis Section |
| 96 CEG/CEVH | 96 th Civil Engineer Group, Cultural Resources Branch |
| AAC | Air Armament Center |
| ACAM | Air Conformity Applicability Model |
| AF | Air Force |
| AFB | Air Force Base |
| AFI | Air Force Instruction |
| AFOSH | Air Force Occupational Safety and Health |
| AFR | Air Force Regulation |
| AICUZ | Air Installation Compatible Use Zone |
| ANSI | American National Standard Institute |
| AOC | Area of Concern |
| APZ | Accident Potential Zone |
| Bldg | Building |
| BMP | Best Management Practices |
| CAA | Clean Air Act |
| CEQ | Council on Environmental Quality |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| CZ | Clear Zone |
| CZMA | Coastal Zone Management Act |
| DOPAA | Description of Proposed Action and Alternatives |
| EA | Environmental Assessment |
| EIAP | Environmental Impact Analysis Process |
| EO | Executive Order |
| ERP | Environmental Restoration Program |
| FAC | Florida Administrative Code |
| FDEP | Florida Department of Environmental Protection |
| GSA | Government Services Agency |
| HUD | Department of Housing and Urban Development |
| HVAC | Heating, Ventilation, Air Conditioning |
| LBP | Lead-Based Paint |
| L_{eq(24)} | Average Sound Pressure Level for a 24-Hour Period |
| L_{eq(8)} | Average Sound Pressure Level for an 8-Hour Period |
| µg/m³ | Micrograms per Cubic Meter |
| MFH | Military Family Housing |
| MILCON | Military Construction |
| NAAQS | National Ambient Air Quality Standards |
| NCO | Non-Commissioned Officer |
| NEI | National Emissions Inventory |
| NEPA | National Environmental Policy Act |
| NESHAP | National Emissions Standards for Hazardous Air Pollutants |
| NFA | No Further Action |
| NHPA | National Historic Preservation Act |
| NIOSH | National Institute for Occupational Safety and Health |
| NO₂ | Nitrogen Dioxide |
| NO_x | Nitrogen Oxides |
| NPDES | National Pollutant Discharge Elimination System |

LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS CONT'D

| | |
|------------------------|---|
| NRHP | National Register of Historic Places |
| NSR | New Source Review |
| NFWMD | Northwest Florida Water Management District |
| O₃ | Ozone |
| OSHA | Occupational Safety and Health Administration |
| Pb | Lead |
| PM₁₀ | Particulate Matter Less Than or Equal to 10 Microns in Diameter |
| ppm | Parts per Million |
| PSD | Prevention of Significant Deterioration |
| RCRA | Resource Conservation and Recovery Act |
| ROI | Region of Influence |
| RTB | Ranger Training Battalion |
| SEL | Sound Exposure Levels |
| SER | Significant Emissions Rate |
| SIP | State Implementation Plan |
| SO₂ | Sulfur Dioxide |
| sq ft | Square Feet |
| SWPPP | Stormwater Pollution Prevention Plan |
| TCLP | Toxicity Characteristic Leaching Procedure |
| TCP | Traditional Cultural Properties |
| U.S. | United States |
| UST | Underground Storage Tank |
| USEPA | U.S. Environmental Protection Agency |
| VOC | Volatile Organic Compounds |
| VCT | Vinyl Composition Tile |
| yr | Year |

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1. PURPOSE AND NEED FOR ACTION

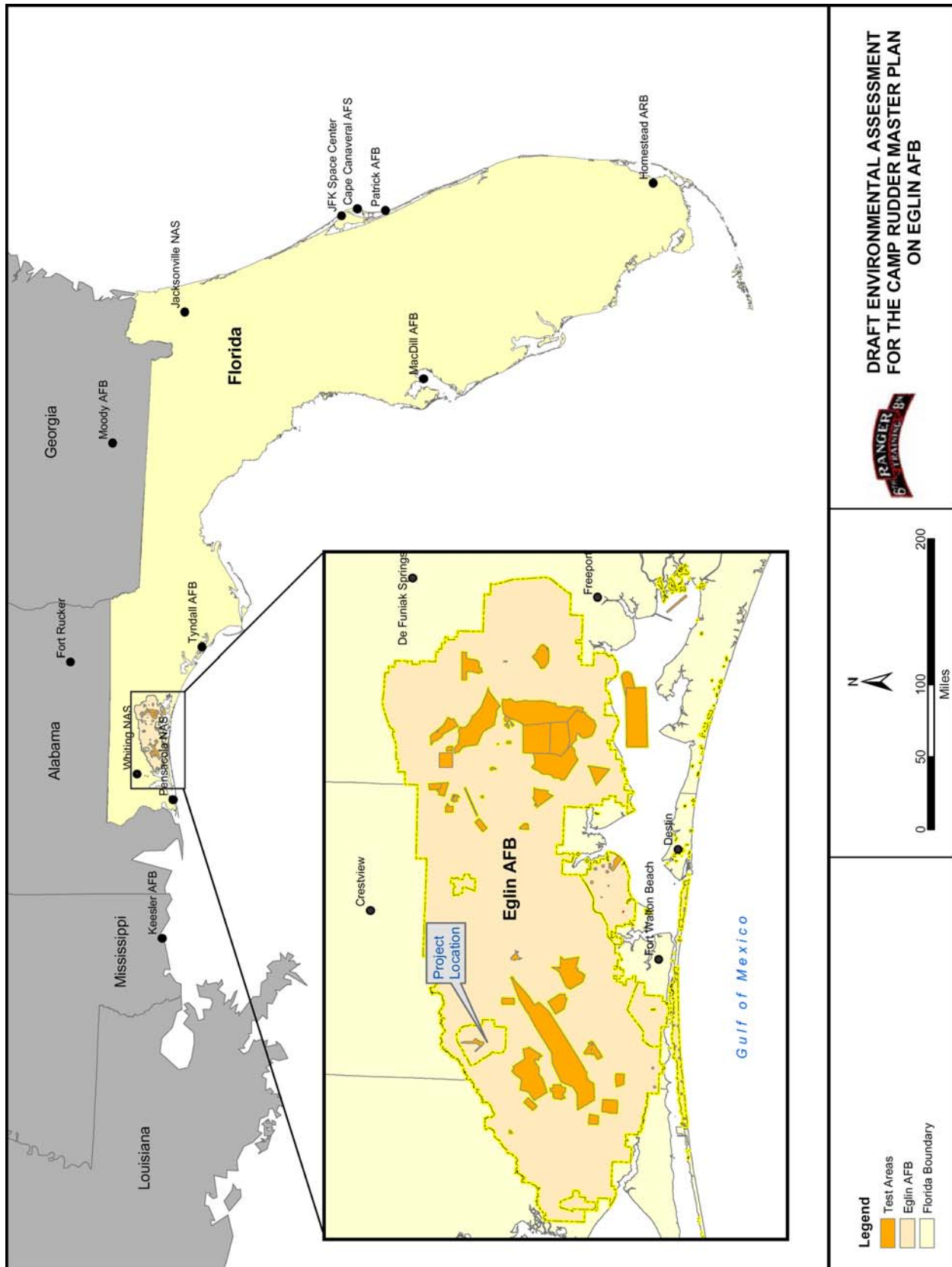
1.1 PROPOSED ACTION

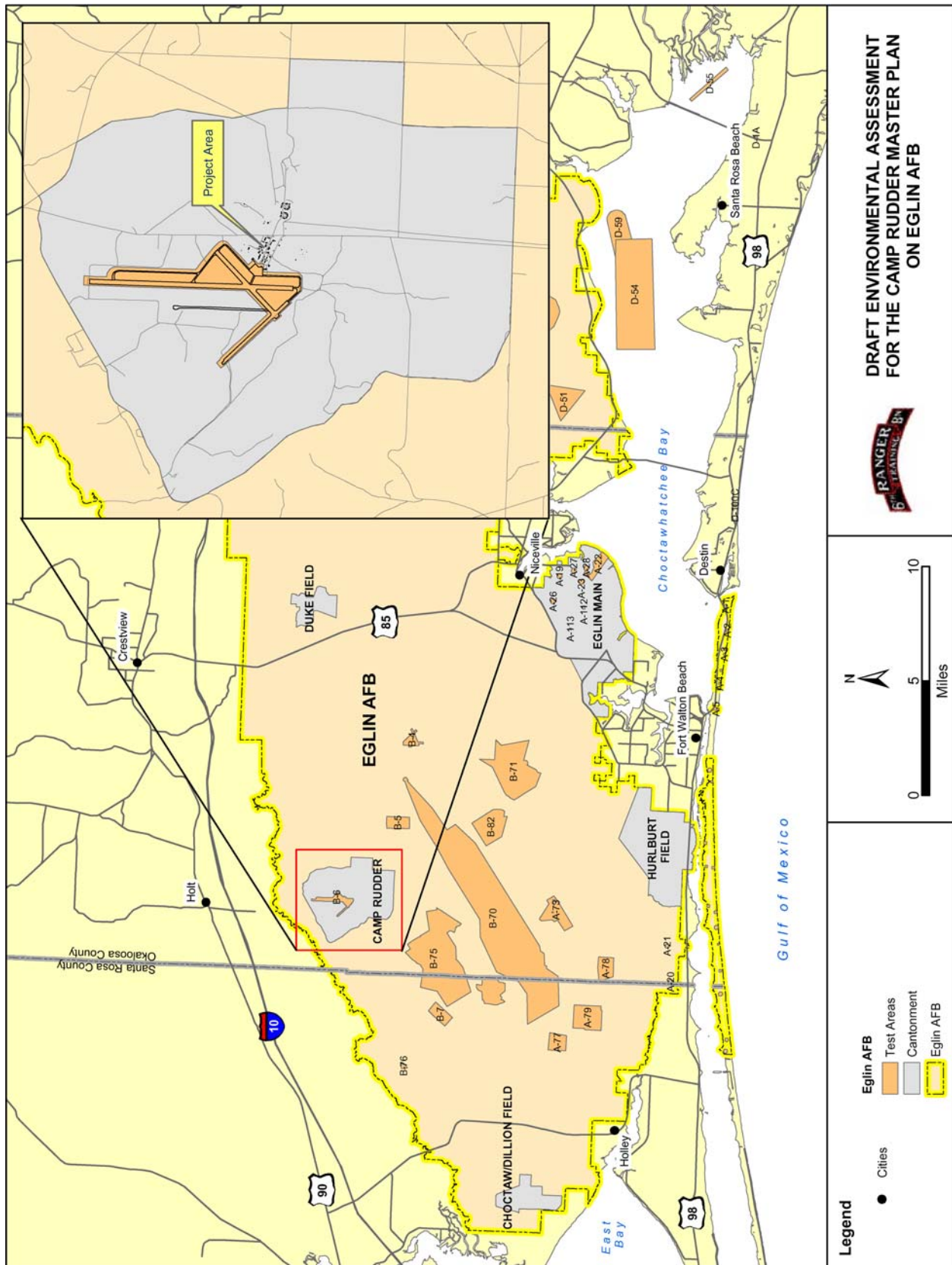
The Proposed Action is to initiate activities under the Ranger Training Brigade (RTB) Recapitalization Master Plan for the 6th Ranger Training Battalion (6th RTB) at Camp James Rudder on Eglin Air Force Base (AFB) (Figures 1-1, 1-2, and 1-3). These activities include constructing six pre-engineered metal buildings, replacing the gymnasium, renovating the student and cadre barracks, and building a Controlled Environment Storage Facility (Boat House, new Building 6070), a consolidated Company Operations Facility and a consolidated Maintenance and Storage Facility. Infrastructure needed to support daily operation includes utility line connections to the buildings. Buildings 6016, 6018, 6019, 6020, 6022, 6024, 6025, 6030, 6034, 6041, 6042, 6043, 6044, 6045, 6046, and 6070 would be demolished. The demolition of existing buildings encompasses 41,150 square feet. This Environmental Assessment (EA) describes the potential environmental impacts that would result from these activities. The Ranger Training Brigade is the proponent of the action, and the Air Force is the cooperating agency.

1.2 BACKGROUND

The Ranger Training Brigade, located on Fort Benning, Georgia, is the proponent for the U.S. Army Ranger School and serves as the premier training institution for small unit tactics and applied leadership. The brigade is composed of three battalions, which sponsor separate and distinct phases of Ranger training, exposing students to various terrain and tactical environments. The 4th Ranger Training Battalion (4th RTB) located on Camp Rogers, Fort Benning, Georgia, hosts the first phase of training, which consists of a series of physical aptitude assessments, combative training, tactical instruction, and preliminary field training exercises. The second phase of training is conducted at the 5th Ranger Training Battalion (5th RTB) located on Camp Frank D. Merrill in Dahlonaga, Georgia. Located at the base of the Tennessee Valley Divide, this “Mountain Phase” of training exposes students to tactical operations in a mountainous environment in addition to basic mountaineering skills, rock climbing, and rappelling. The third and final phase of training is conducted at the 6th Ranger Training Battalion (6th RTB) on Camp Rudder, Eglin AFB. This “Florida Phase” or “Swamp Phase” of training exposes students to tactical operations in a coastal swamp environment in addition to basic waterborne training techniques, tactical river crossings, and basic survival training.

The 6th Ranger Training Battalion on Camp Rudder is composed of Battalion Headquarters, a Headquarters Company, and three Companies of Ranger Instructors for a total of approximately 300 soldiers in the unit. The Florida Phase of training consists of an 18-day training cycle, executed 11 times each calendar year. Each cycle supports a student load of 100 to 240 students consisting of soldiers from all branches of the U.S. Armed Forces and other sovereign nations. Training is supported by Battalion internal agencies (Logistics and Supply, Communications, Medical, Armory, Maintenance, etc.) and contracted vehicle support from the Government Services Agency (GSA). The high intensity training conducted at the 6th RTB requires an intricate support network to ensure the safety of students and instructors. Vehicles, watercraft, communications equipment, and safety equipment must be maintained to a high degree of functionality to endure the repeated use during each cycle throughout the year. Each 18-day training cycle includes two airborne operations, two to three air assault operations, four waterborne operations, and two tactical river crossings. Training is conducted throughout the year in all climatic and weather conditions.





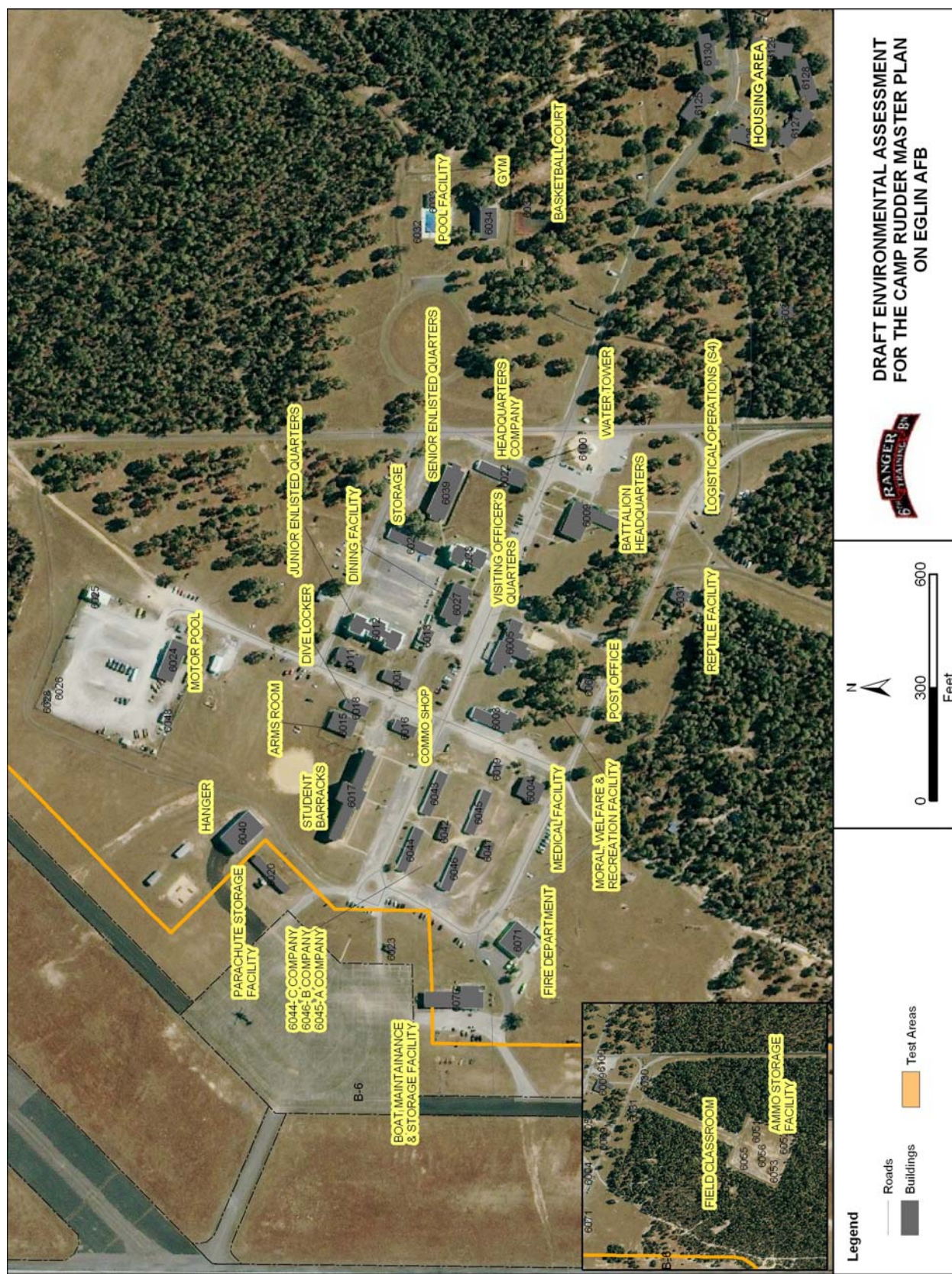


Figure 1-3. Camp Rudder Buildings and Facilities

The training cycle consists of an 18-day event, which entails preliminary training conducted on Camp Rudder in addition to a 14-day field training exercise conducted on the northwestern section of the Eglin reservation. Preliminary training on Camp Rudder includes tactical instruction and practical exercises, medical training, survival training, safety training, and reptile awareness classes. The field training exercise begins with an airborne insertion into northwest section of Test Area B-70 followed by tactical movement north to the Yellow River. The tactical missions follow the Yellow River south over a period of eight days in which tactical objectives are executed in the swamps and low-lying areas southeast of the river. The latter portion of the exercise consists of operations in the vicinity of Auxiliary Field 10 and ultimately on Santa Rosa Island in the vicinity of Test Area A-14. The final days of the cycle are held on Camp Rudder and consist of administration and preparation for re-deployment to Fort Benning.

1.3 NEED FOR THE PROPOSED ACTION

The 6th RTB currently operates out of several buildings that have been degraded by age and damaged by Hurricane Ivan. Many buildings have been rendered substandard with respect to living conditions, causing an adverse impact to the mission of the 6th RTB. Recent evaluations by Eglin Civil Engineering officials indicate that the buildings are damaged or deteriorated beyond economical repair.

The construction of a consolidated Maintenance and Storage Facility would incorporate buildings 6016, 6019, 6024, 6025, 6030, and 6070 for a total of 11,150 square feet into a modern facility designed to increase the efficiency of logistics and support operations. The facility would provide for storage and maintenance areas for each support function on Camp Rudder to include management and maintenance of military and non-military (GSA) vehicles, rubber dive boats, boat motors, combat diving equipment, and tactical communications equipment. Adequate office space would be allocated for logistics and support personnel, thus providing for a streamlined support system, which prevents duplication of facilities, personnel, and equipment. Additionally, the consolidated facility would improve management of hazardous waste accumulation sites that result from the day-to-day operations of the 6th RTB.

The construction of a Company Operations Facility would incorporate buildings 6041, 6042, 6043, 6044, 6045, and 6046 for a total of 10,000 square feet into a modern and functional workspace for the 6th RTB cadre. This action would improve the building standards (by replacing substandard buildings) and provide for adequate office space, equipment storage, and create a training preparation area for day-to-day operations. Continued use of the current inadequate facilities will result in continued demoralization of the troops, and will not project the professional image that is preferred by the Army for its soldiers. The facilities have well exceeded their intended life cycle and are physically deteriorated to the point that they will soon fall down.

The construction of a Controlled Environment Storage Facility (Boat House) is to replace the existing Boat House, which is a wood-framed structure originally constructed in 1953 as a temporary Fire Department. The new facility will directly support a critical element of Ranger Training, which provides coastal swamp operations, helicopter operations/rescue, and safety procedures used to conduct these types of operations. The 6th Ranger Training Battalion is using the existing facility to store costly equipment and perform repairs on rubberized watercraft that

require environmentally controlled conditions to meet factory guidelines for repairs for safety, and dependability. The existing facility does not provide sufficient workspace, layout area, storage capabilities, or ventilation requirements. The proposed facility will provide all of these needs in accordance with the manufactures recommendations, current building code requirements, and local/state/federal laws.

The student barracks and cadre living quarters require renovation due to depreciation by age, Hurricane Ivan damage, and the resulting deteriorated living conditions. The project includes complete renovation of roofs, electrical components, flooring, and heating, ventilation, and air-conditioning (HVAC). Continued use of the facilities in their current condition perpetuates existing concerns for troop morale, safety, and well-being.

1.3.1 Objective of the Proposed Action

The objective of the Proposed Action is to systematically improve the infrastructure on Camp Rudder through phased construction and renovation projects. These initiatives are phased into Short-Term Plans (1 to 3 years) and Mid-Term Plans (4 to 6 years). Short-term initiatives include the construction of pre-engineered buildings and renovation of the student and cadre barracks. Mid-term initiatives include the new construction of consolidated facilities and a pre-engineered building. In accordance with the Master Plan, the following facilities would be constructed within the complex.

Short-Term Plan *Construction* Initiatives (1 to 3 years)

- Vehicle Maintenance Facility (Motor Pool Replacement, Building [Bldg] 6024)
- Underwater Equipment Maintenance and Storage Facility (Dive Locker, Bldg 6018)
- Administration Office (Logistical Operations, S4 Shop, Bldg 6030)
- Administration Office (Headquarters Company Command Post, Bldg 6022)
- Storage and Marine Maintenance Facility (vicinity Bldg 6024)
- Controlled Environment Storage Facility (Boat House, Bldg 6070)

Short-Term Plan *Renovation* Initiatives (1 to 3 years)

- Student Barracks (Bldg 6017)
- Junior Enlisted Quarters (Bldg 6012)
- Senior Enlisted Quarters (Bldg 6039)
- Visiting Officers Quarters (Bldg 6027)

Mid-Term Initiatives (4 to 6 years)

- Company Operations Facility
- Consolidated Maintenance and Storage Facility
- Gymnasium
- Parachute Storage Facility

In addition to the proposed facilities, supporting infrastructure would be constructed to include a gravel drive-through at the Dive Locker, utility connections, and stormwater abatement. Buildings 6016, 6018, 6019, 6020, 6022, 6024, 6025, 6030, 6034, 6041, 6042, 6043, 6044, 6045, 6046, and 6070 would be demolished under the Proposed Action. The demolition of existing buildings encompasses a total of 38,070 square feet.

1.4 RELATED ENVIRONMENTAL DOCUMENTS

Table 1-1 lists the National Environmental Policy Act (NEPA) and planning documents related to this action. These projects have activities associated with Camp Rudder.

Table 1-1. Related Environmental Documents

| Title | Control Number | Date | Decision |
|---|---|-----------------|------------------------|
| Eglin AFB Barriers and Intrusion Detection Systems and Security Fencing Final Environmental Assessment | AF Form 813 RCS: 02-314, 02-315, and 02-646 | 10 January 2003 | Signed FONSI |
| Eglin AFB and Hurlburt Field Military Family Housing Demolition, Construction, Renovation, and Leasing Program Environmental Impact Statement | AF Form 813 RCS: 03-778 and 03-791 | 10 March 2005 | Currently under review |

1.5 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

This document was prepared in accordance with the requirements of the National Environmental Policy Act of 1969, the Council on Environmental Quality (CEQ) regulations of 1978, Title 32 Code of Federal Regulations Part 989 (32 CFR 989), and Air Force Instruction (AFI) 32-7061, *Environmental Impact Analysis Process*. To initiate the environmental analysis, the 6th RTB and the 96th Civil Engineer Group submitted several Air Force (AF) Form 813s, "Request for Environmental Impact Analysis," to the Environmental Management Division, Stewardship Branch, and Environmental Analysis Section (96 CEG/CEVSP). A review of the AF Form 813s by CEVSP determined that the Environmental Impact Analysis Process (EIAP) Working Group should address the Proposed Action.

1.5.1 Issues Eliminated from Detailed Analysis

Based on the scope of the Proposed Action, the Upgrade and Renovation Alternative, and the No Action Alternative, and on preliminary analyses, the following issues were eliminated from further analysis.

Biological Resources

The proposed project sites consist of open fields with maintained grass or gravel parking areas. No sensitive species or habitats have been identified at building construction areas. No trees will be removed, and construction would take place in cleared portions of the site.

Environmental Restoration Program/Area of Concern Sites (ERP/AOC)

No active Environmental Restoration Program (ERP) sites are located within the boundaries of the proposed site. The closest active ERP site, OT-270, Cattle Dip Vat, is located approximately 3 miles northeast of the proposed construction sites. Land Use Controls are not scheduled on this ERP until 2007. Two closed ERP sites on Camp Rudder were detected in preliminary analysis. ERP ST-254 was approved for No Further Action (NFA) in 2001 and ERP ST-056 was approved for NFA in 1994. Therefore, no impacts to ERP sites are expected.

Wetlands and Floodplains

The nearest wetland area is approximately 3,180 feet from the proposed site, and as such, no impacts to wetlands are expected.

Based on Federal Emergency Management Agency floodplain mapping data, the Proposed Action would not involve the use of or change to the functionality, topography, or utility of floodplain areas. The proposed site is approximately 3,330 feet east of the 100-year flood zone. Consequently, there would be no impact to floodplains from the Proposed Action.

Utilities

Issues associated with utility infrastructure are related to the ability of the surrounding areas to accommodate the Proposed Action. Electric, fuel oil, wastewater, and drinking water utilities for the newly constructed facilities would tie into existing utility lines. Wastewater generated from showers, laundry, and kitchen facilities would be disposed of through connections to existing sanitary sewer utilities. There would be no increase in personnel or change in mission; therefore, there would be no increase in the usage of existing utilities. Coordination with all utility providers would be required prior to any ground disturbance activities in an effort to minimize potential conflicts between utility providers. The utility provider for water and sewer is 796 CES/CEOMFU, RMD Range Utilities, Mr. Dennis Ebel (883-6514). The Proposed Action would not adversely impact existing electric, drinking water, sanitary sewer or fuel oil service and is therefore eliminated as a potential issue.

Environmental Justice and Child Safety

The Executive Order (EO) on environmental justice and the accompanying memorandum ensure that federal agencies focus attention on the potential for a proposed federal action to cause disproportionately high and adverse health effects on minority populations or low-income populations. Preliminary analysis showed that no environmental justice concern areas including low-income and/or minority populations were adjacent to the proposed site for the 6th RTB.

The EO on protection of children from environmental health risks and safety risks mandates that all federal agencies assign a high priority to addressing health and safety risks to children, coordinating research priorities on children's health, and ensuring that their standards take into account special risks to children. No surveys for lead-based paint have been conducted in the buildings scheduled for demolition and renovation (refer to Section 3.1.2). Lead-based paint has the potential to disproportionately affect children if the paint is ingested. The primary use of these buildings is not for child-related activities; children do not regularly use them. The closest facility to child-frequented areas is Building 6030, which is approximately 950 feet east of the

family housing area. However, all demolition sites would be fenced, preventing unauthorized access. Therefore, no impacts to children are expected. Furthermore, because the proposed activities would take place on Eglin AFB, no potential impacts to the public, including low-income or minority populations or children, are anticipated.

Land Use

Land use at the proposed site would not be affected. The new buildings and consolidated facilities would be erected directly adjacent to existing buildings. The Proposed Action is within the guidelines of future development of Eglin AFB. No changes to surrounding land use or to current Air Installation Compatible Use Zones (AICUZ) would occur. Clear Zones (CZs) and Accident Potential Zones (APZs) are buffer zones established around aircraft landing areas where aircraft mishaps are most likely to occur. To ensure the safety of personnel and civilians, development of structures that involve regular occupancy is not permitted within CZs or APZs. The proposed construction would take place outside the CZs and APZs associated with the airfield.

Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA) of 1966 requires that federal agencies analyze the impacts of federally directed or funded undertakings on historic properties (NHPA, 1966). There are no known archaeological sites or historic structures eligible for the National Register of Historic Places (NRHP), located in the vicinity of the proposed facilities in the Camp Rudder project area. In addition, there are no known properties considered to have cultural or religious significance to any identified Federally recognized Native American group or areas that are considered Traditional Cultural Properties (TCP's) (Shreve, 2005). A recent architectural study conducted under section 110 of the NHPA, was conducted on structures proposed for demolition or renovation within the Camp. This architectural study determined that none of the buildings met any of the eligibility criteria for listing on the NRHP. The historic and prehistoric probability model also characterizes the Camp Rudder project area as low probability due to prior damage from building construction and low elevation/slope considerations (Shreve, 2005). Evaluations of these structures can be found in Appendix A of this document. As a result of these evaluations, no impacts are anticipated in association with the construction of the consolidated Maintenance and Storage Facility and Company Operations Facility planned under the Proposed Action and Upgrade and Renovation Alternative.

If any work not included as part of the Proposed Action or Alternatives put forward in this EA is required in the future, such plans must be coordinated with Eglin's Cultural Resources Branch (96 CEG/CEVH) office prior to their approval and implementation. All additional ground-disturbing activities at Eglin must be subject to prior consultation and approval with Eglin's Historic Preservation Section (96 CEG/CEVH) that oversees and maintains records on all cultural resource activities on the Base. Additionally, should any inadvertent discoveries of archaeological material be made during the course of construction or demolition, all actions in the immediate vicinity will cease and efforts will be taken to prevent the find from further impact (Shreve, 2005).

Safety

The Proposed Action is located outside the CZ and APZ associated with the adjacent airfield. Construction would remain outside the CZ and APZ; therefore, impacts to safety are not likely to occur. Furthermore, construction activities would be conducted in accordance with Air Force Occupational Safety and Health (AFOSH) and Occupational Safety and Health Administration (OSHA) requirements.

Non-Hazardous Materials/Solid Waste

Construction activities would potentially generate large amounts of solid waste such as construction and demolition debris, land-clearing debris, and soil. These waste streams would be segregated at generation for recycling or disposal at a secure, permitted facility in accordance with Air Armament Center (AAC) Plan 32-7, Solid Waste Management. As a result, no adverse environmental impacts are anticipated and further analysis was not warranted.

Socioeconomic Issues

Socioeconomics addresses the potential for positive and negative impacts to occur in the local economy. The local economy would experience a temporary positive impact during the design and the construction phase of the project, because it would provide jobs in that industry. No negative impacts on employment, housing, and base and county services are expected. In accordance with EO 13101, Affirmative Procurement (buying products containing recycled materials) should be used if economical and practical.

1.5.2 Issues Studied in Detail

Preliminary analysis based on the scope of the Proposed Action, Upgrade and Renovation Alternative, and the No Action Alternative identified the following potential environmental issues warranting detailed analysis.

Hazardous Materials

The 6th RTB currently generates hazardous materials in the form of weapons cleaning products and wastes. There would be no increase in the use of weapons cleaning products; and therefore, this area does not require analysis. Additionally, State of Florida and Air Force regulations have been implemented to ensure that all hazardous waste is properly handled to reduce the potential risks to the population. 6th RTB personnel would properly identify, separate, label, store, and discard all hazardous wastes in accordance with applicable federal, state, and Air Force regulations.

The buildings that would be demolished may contain hazardous materials such as asbestos-containing material and lead-based paint. Analysis focuses on the presence of these materials in buildings and the potential impacts from these substances. Management actions that must be taken to ensure that these materials are properly eliminated from buildings prior to demolition are outlined.

Noise

Noise associated with this project would result from the use of construction, demolition, and land grading equipment. The heavy equipment would produce noise, particularly during site preparation. The proximity of the project sites to the housing area requires impact analysis of the construction noise.

Soils/Erosion

Areas likely to be impacted by erosion are identified based on parameters such as soil type and extent and proximity of vegetative cover to the affected area. Analysis identifies erosion-prone soils at the proposed work site and determines the likelihood of soil loss. A Stormwater, Erosion, and Sedimentation Control Plan, a Stormwater Pollution Prevention Plan (SWPPP), and construction Best Management Practices (BMPs) would be incorporated into the construction process as required by regulations implemented by the Florida Department of Environmental Protection (FDEP).

Water Quality

This EA addresses the potential for impacts to water quality. The clearing of land and increase in impervious surfaces under the Proposed Action creates the potential for an increase in the rate and volume of stormwater runoff. Management requirements, including permitting and stormwater control methods, as well as best management practices are addressed.

Air Quality

Air quality could be affected by the addition of combustive by-products and dust to the air resulting from construction and land clearing. Potential impacts would be denoted if project emission estimates were to exceed 10 percent of Okaloosa County's Air Emission Inventory. Although analysis of this type is used for impact analysis to air quality in accordance with a General Conformity Rule determination, a general conformity determination does not apply to Eglin, because Eglin is within an attainment area with regard to U.S. Environmental Protection Agency (USEPA) air quality standards. The 10 percent criterion is used as a threshold for impact analysis for non-attainment or maintenance areas (areas that were non-attainment but now are in attainment). However, the 10 percent criterion is used here as a threshold for potential adverse impacts.

1.6 APPLICABLE REGULATORY REQUIREMENTS AND COORDINATION

Reviews of pertinent documents, site visits, and communication with Eglin personnel found no identified threatened and endangered species within the proposed project area. Therefore, no consultations with regulatory agencies for threatened or endangered species are required for construction of the buildings at Camp Rudder. If any cultural artifacts are inadvertently discovered during construction activities, coordination with 96 CEG/CEVH is required.

The following management actions must be implemented to reduce impacts to air quality.

- Eglin AFB is currently operating under a Title V air operation permit. This permit regulates all stationary air emission sources on the Eglin Military Complex. Revisions

must be made to the Eglin Title V permit to reflect changes, if any, to the numbers of boilers and emergency generators installed at Camp Rudder.

- During ground-disturbing and construction activities, reasonable precautions must be taken to control dust emissions and unconfined particulate matter.

The 96 Civil Engineer Group, Environmental Management Division, Environmental Compliance Branch, Environmental Engineering Section (96 CEG/CEVCE) Air Quality Program Manager must be notified about any new air emissions sources.

A design and construction permit in accordance with Chapter 62-25 Florida Administrative Code (FAC) (Rule 62-25) would be required due to the increase in impervious surface area created by the construction and structures associated with Camp Rudder. A Notice of Intent to Use the General Permit for New Stormwater Discharge Facility Construction must be submitted prior to project initiation according to the Rule 62-25.

The cumulative construction area is larger than 1 acre; therefore, the Proposed Action requires coverage under the Generic Permit for Stormwater Discharge from Construction Activities that Disturb One or More Acres of Land (Rule 62-621, FAC). Coordination with 96 CEG/CEVCE is required to obtain stormwater and any necessary utility extension permits. In accordance with FDEP regulations, the Proposed Action involves the construction of a stormwater discharge feature to provide on-site treatment of stormwater. Design of the project will take into consideration the landscape of the area and physical features to determine whether a retention pond or series of swales would be used to contain runoff. The proposed retention feature would be designed by a Florida-registered Professional Engineer to meet FDEP regulations.

This construction project requires consistency with Florida's Coastal Zone Management Act (CZMA). The FDEP will review a negative determination submitted by the U.S. Air Force via Eglin's Natural Resources Section (96 CEG/CEVSN). The Air Force CZMA Consistency Determination is provided in Appendix B.

1.7 DOCUMENT ORGANIZATION

This Environmental Assessment follows the organization established by the Council on Environmental Quality regulations (40 CFR 1500-1508). This document consists of the following chapters.

1. Purpose and Need for Action
2. Description of Proposed Action and Alternatives
3. Affected Environment
4. Environmental Consequences
5. Plans, Permits, and Management Actions
6. List of Preparers
7. References

2. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

As required by federal regulation, this Environmental Assessment addresses the possible environmental impacts of the Proposed Action, the Upgrade and Renovation Alternative, and a No Action Alternative. Section 2.3 provides a summary of the issues and potential impacts associated with the Proposed Action, Upgrade and Renovation Alternative, and the No Action Alternative. Although it would also be reasonable to include as alternatives any combination of demolition, and construction and renovation of any number of the deteriorated and damaged buildings, this would result in a large number of alternatives. Additionally, the environmental impact of these other combinations of reconstruction and renovation would not differ from that of the three alternatives. In such instances, the Air Force regulation, at 32 CFR 989.8(b), allows for the limitation of alternatives to “a reasonable range or to a reasonable number of examples covering the full spectrum of alternatives.” In this particular case, the three alternatives represent a reasonable range and cover the full spectrum of environmental impacts.

2.1 PROPOSED ACTION (PREFERRED ALTERNATIVE)

The Proposed Action, which is also the Preferred Alternative, is to construct six pre-engineered metal replacement buildings, build a Controlled Environment Storage Facility, a consolidated Maintenance and Storage Facility and consolidated Company Operations Facility, replace the gymnasium, and renovate the dormitories in support of the 6th RTB at Camp Rudder (Figure 2-1). Phasing of these projects is shown in Table 2-1. The proposed project sites consist of open fields or gravel parking areas. Photographs of existing structures and proposed construction sites are located in Appendix C. Various building configurations were considered for new construction associated with the Camp Rudder Master Plan. The particular configuration that is represented by the Proposed Action was the one chosen for analysis.

The Proposed Action would bring the total impervious area from new construction to approximately 47,304 square feet (approximately 1 acre). A total of 41,150 square feet would be demolished and 65,030 square feet would be renovated. The totals for these activities are broken down in Table 2-1.

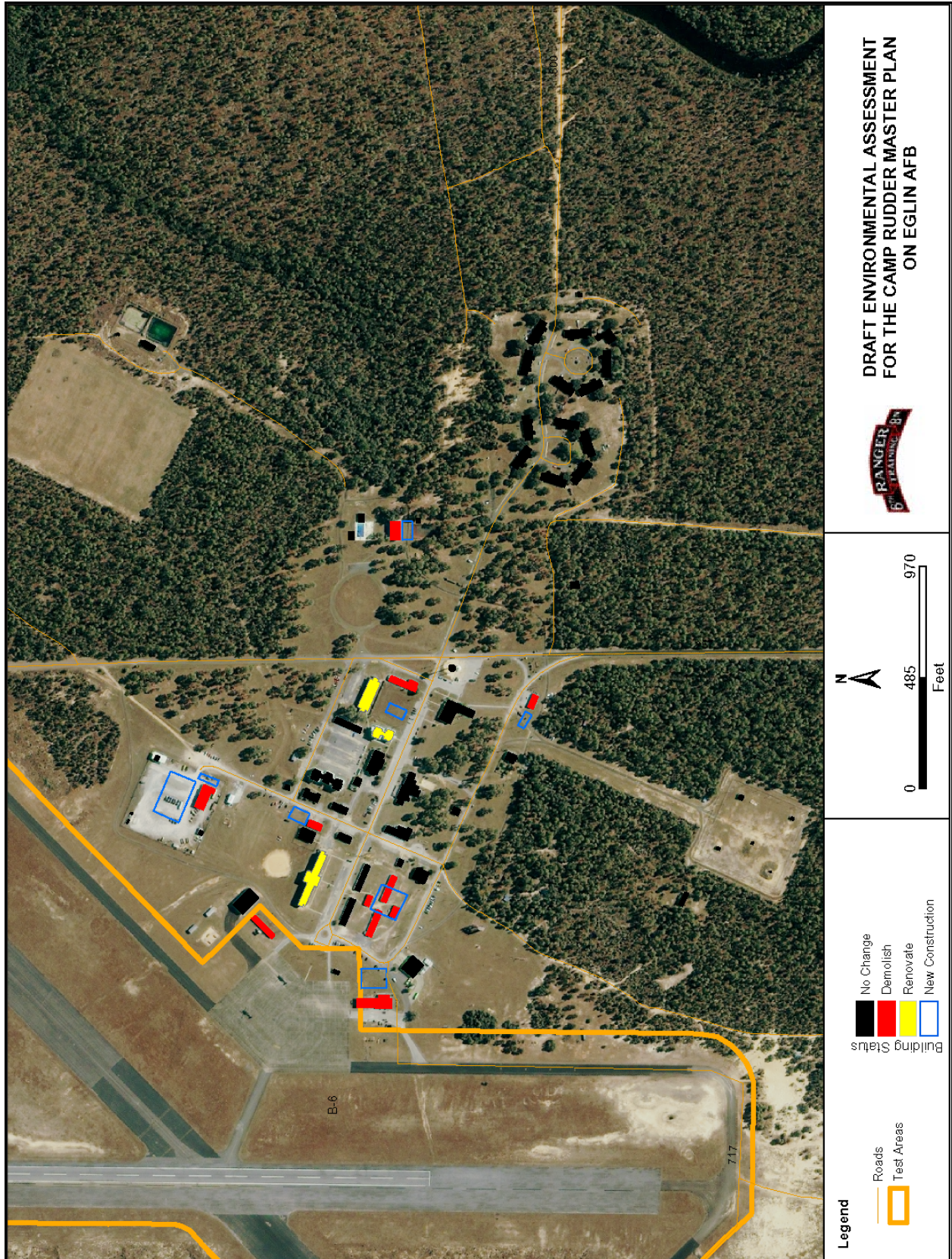


Figure 2-1. Construction, Renovation, and Demolition Initiatives of the Proposed Action

Table 2-1. Construction, Demolition, and Renovation Proposed Actions in Support of the 6th RTB at Camp Rudder on Eglin AFB

| Structure | Year Built | Description of Proposed Action | Construction (square feet) | Demolition (square feet) |
|---|----------------------|--|----------------------------|--|
| Short-Term Plan Initiatives (1-3 years) | | | | |
| Construct Dive Locker Demolish Bldg 6018 | 1942 | Demolish Bldg 6018 and replace with building of same footprint. | 1,500 sq ft | 1,500 sq ft |
| Construct Administration Office (Head Quarters Company HHC CP) Demolish Bldg 6022 | 1970 | Demolish Bldg 6022 and replace with building of same footprint. | 2,944 sq ft | 2,944 sq ft |
| Construct Vehicle Maintenance Shop Demolish Vehicle Maintenance Shop - Bldg 6024 | 1970 | Demolish existing facility and replace with building of same footprint. | 3,000 sq ft | 4,040 sq ft |
| Construct Administration Office (S-4) Demolish Administration Office Bldg 6030 | 1956 | Demolish Bldg 6030 and replace with building of same footprint. | 1,500 sq ft | 1,500 sq ft |
| Construct Controlled Environment Storage Facility (Boat House) new bldg #6070 Demolish: Building 6070 Building 6016 Building 6019 | 1953 1942 1970 | Replace existing facility with efficient space and systems to support work/layout area, storage space, and maintenance/ repair environmental to maintain water craft used to support coastal swamp operation training for the Ranger Training Brigade. | 4,800 sq ft | Total 5,060 2,960 sq ft 1,500 sq ft 600 sq ft |
| Construct Storage and Marine Maintenance Facility | | Storage facilities damaged or destroyed during Hurricane Ivan. Replace three storage facilities with one standing seam roof building. A marine maintenance area would be included. | 3,200 sq ft | |
| TOTAL SHORT-TERM | | | 16,944 sq ft | 15,044 sq ft |

Table 2-1. Construction, Demolition, and Renovation Proposed Actions in Support of the 6th RTB at Camp Rudder on Eglin AFB Cont'd

| Structure | Year Built | Description of Proposed Action | Construction (square feet) | Demolition (square feet) |
|--|------------|--|----------------------------|--------------------------|
| Mid-Term Plan Initiatives (4-6 years) | | | | |
| Construct Consolidated Company Operations Facility (MILCON) | | Construct a company operations building to accommodate Companies A, B, and C of the 6 th RTB. Support facilities include utilities, electric service, exterior lighting, water distribution, fire protection, alarm systems, paving, sidewalks, curbs, gutters, parking and access drives, signage, dumpster pads, sanitary sewer collection, storm drainage system, information systems, and site improvements. Access for the handicapped will be provided. Heating and air conditioning (50 tons) will be provided by self-contained systems. Anti-terrorism/force protection standards will be incorporated into the planning, programming, design, and construction of this project to meet the 220 pounds TNT Level of Protection. | 12,600 sq ft | Total 13,656 sq ft |
| Demolish: | | | | |
| Latrine Bldg 6041 | 1970 | Bldgs 6041, 6042, 6043 6044, 6045, and 6046 will be demolished. | | 940 |
| Latrine Bldg 6042 | 1970 | | | 940 |
| Admin Bldg 6043 | 1970 | | | 2,944 |
| Admin Bldg 6044 | 1970 | | | 2,944 |
| Admin Bldg 6045 | 1970 | | | 2,944 |
| Admin Bldg 6046 | 1970 | | | 2,944 |
| Construct Consolidated Maintenance and Storage Facility (MILCON) | | Construct a consolidated facility that includes a maintenance area for military and non-military (GSA) vehicles including ambulances; a maintenance and controlled environment storage area for rubber dive boats, boat motors, safety vests, combat diving equipment, and tactical and non-tactical radios; and logistics and administration areas. Supporting facilities include utilities, electrical service, exterior lighting, water distribution, fire protection and signage, fencing and gates, dumpster pad, sanitary sewer collection system and storm drainage system, information systems, and site improvements. Access for handicapped will be provided. Heating and air conditioning (20 tons) will be provided by self-contained systems. Anti-terrorism/force protection standards will be incorporated into the planning, programming, design, and construction of this project to meet the 220 pounds TNT Low Level Protection. Buildings 6016, 6019, 6024, 6025, 6030, and 6070 will be demolished to include asbestos abatement. | 12,000 sq ft | Total 11,150 sq ft |
| Demolish: | | | | |
| Comm Bldg 6016 | 1942 | | | 1,050 |
| Warehouse Bldg 6019 | 1970 | | | 600 |
| Vehicle Maint Shp Bldg 6024 | 1970 | | | 4,040 |
| Vehicle Svs Rack Bldg 6025 | 1970 | | | 1,000 |
| Admin Bldg 6030 | 1956 | | | 1,500 |
| Storage Bldg 6070 | 1953 | | | 2,960 |
| Construct Gymnasium | | Replace existing facility with new structure. Construct a weight training room with concrete floors and rubber floor covering. Construct room for exercise machines. Upgrade electrical circuits to support additional machines. Construct a combative training room with padded floors. Construct male and female latrines with shower facilities and lockers. Construct full size basketball court and indoor racquetball court. Construct sauna with locks to prevent access by children. Install HVAC system compatible with the Building size. Install lighting as required. Wire the Building for cable television and multiple drops. | 3,280 sq ft | 3,280 sq ft |
| Demolish Gymnasium Bldg 6034 | 1986 | | | |

Table 2-1. Construction, Demolition, and Renovation Proposed Actions in Support of the 6th RTB at Camp Rudder on Eglin AFB Cont'd

| Structure | Year Built | Description of Proposed Action | Construction (square feet) | Demolition (square feet) |
|---|------------|---|----------------------------|--------------------------|
| Construct Parachute Storage Facility | 1943 | Replace facility with new structure. Construct a pre-engineered building to house the S-4 Section, Headquarters Company, and a storage area for parachutes. | 2,480 sq ft | 2,480 sq ft |
| Demolish Parachute Storage Facility Bldg 6020 | | | | |
| TOTAL MID-TERM | | | | |
| TOTAL | | | 47,304 sq ft | 41,150 sq ft |
| Structure | Year Built | Description of Proposed Action | Renovation (square feet) | |
| Short-Term Renovations (1-3 years) | | | | |
| Renovate Junior Enlisted Quarters Bldg 6012 | 1977 | Construct 21.5 square foot (minimum) walk-in closets with lockable doors. Install service counter with bowl, cabinetry, and counter for dedicated microwave circuit. Replace building’s plumbing system. Reconfigure walls to provide new tub/shower combinations in bathrooms and provide new bath finishes, replace bath exhaust system and lighting. Install water supply cutoff valves in baths. Install cleanouts for sanitary lines. Replace smoke detectors and existing alarm system. Install fire sprinkler system. Replace exterior sleeping and lounge room doors, frames with keyless electronic lock sets. Re-glaze and repair windows to ensure operability, energy efficiency and force protection. Replace interior wall finishes in sleeping rooms, laundry rooms, and lounges. Provide vinyl wall covering where appropriate in rooms. Replace ceiling tile with suspended painted gypsum board. Replace flooring with carpet in sleeping room; ceramic tile in bathrooms; and quarry tile in laundry rooms. Abate suspected Vinyl Composition Tile (VCT) floor tile and mechanical ductwork insulation. Replace lighting with fluorescent and task lighting in sleeping rooms and lounges in ceiling and vanity fixtures in bathrooms. Add ground fault receptacles in bathrooms and at service counters and laundry rooms. Rewire sleeping rooms with updated telephone, cable TV, and computer cable hook-ups. Replace HVAC system with new HVAC/VAV system to include air handling units, ductwork, and individual room controls. Upgrade electrical panels servicing building and separate room circuits. Seal exterior masonry walls to prevent water infiltration. All hazardous materials will be identified and abated, stored, and disposed of in accordance with current laws and regulations. | 15,939 sq ft | |
| Renovate Student Dorms Bldg 6017 | 1977 | Same actions as described above for the Junior Enlisted Quarters, Bldg 6012 | 26,049 sq ft | |
| Renovate Enlisted Quarters Bldg 6038 | 1977 | Same actions as described above for the Junior Enlisted Quarters, Bldg 6012 | 8,840 sq ft | |
| Renovate Non-commissioned Officers (NCO) Quarters Bldg 6039 | 1977 | Same actions as described above for the Junior Enlisted Quarters, Bldg 6012 | 14,202 sq ft | |
| TOTAL RENOVATIONS | | | 65,030 sq ft | |

2.2 ACTION ALTERNATIVES

2.2.1 Upgrade and Renovation Alternative

Under the Upgrade and Renovation Alternative, the buildings listed in Table 2-2 will be upgraded through renovation. There will be no construction or demolition of old buildings (Figure 2-2).

Table 2-2. Renovation Actions Associated with the Upgrade and Renovation Alternative in Support of the 6th RTB at Camp Rudder on Eglin AFB

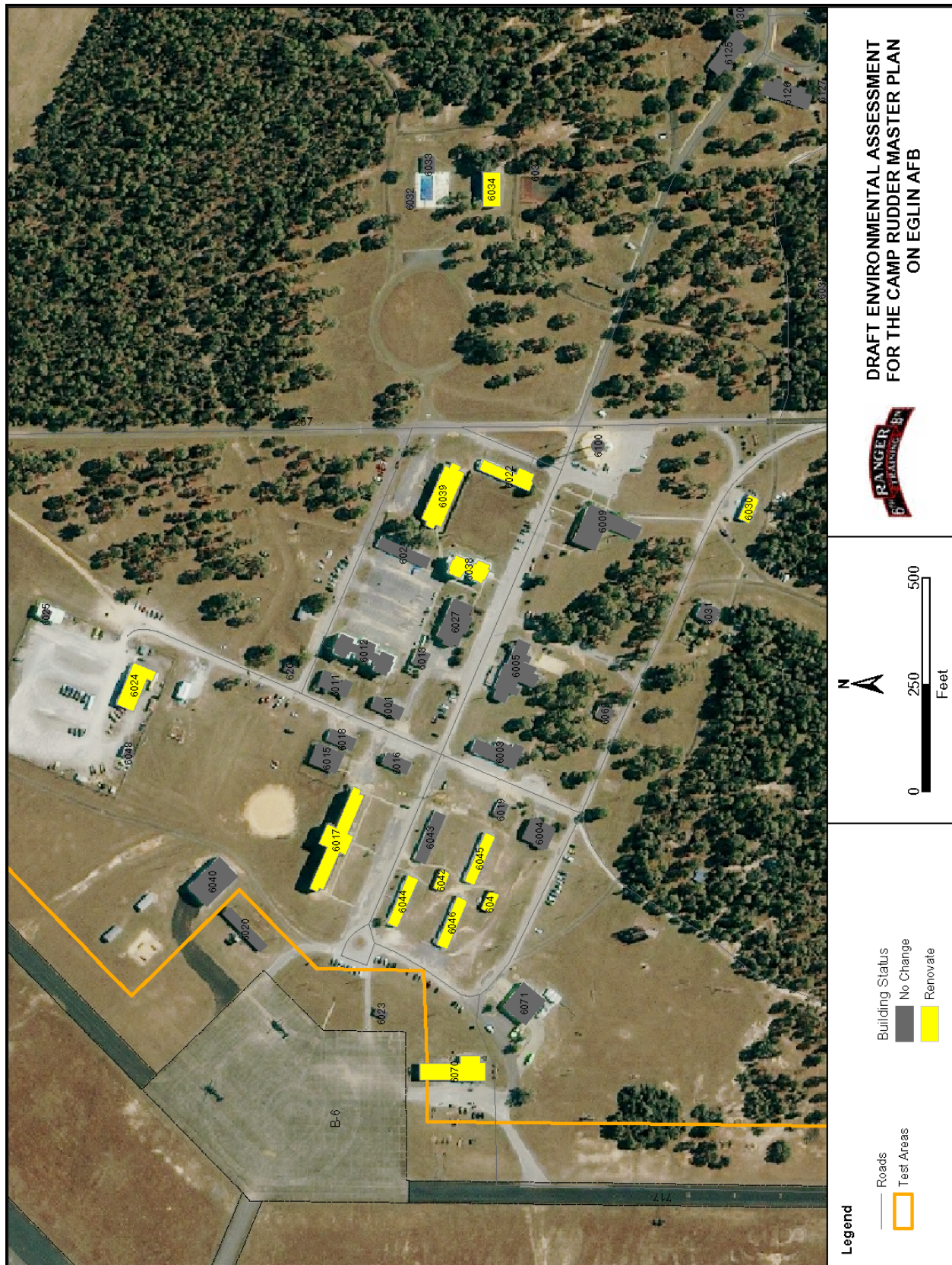
| Structure | Bldg# | Year Built | Description of Upgrade and Renovation Alternative | Renovation (square feet) |
|-----------------------------|-------|------------|--|--------------------------|
| Dive Locker | 6018 | 1942 | Renovate buildings to accommodate Companies A, B, and C of the 6 th RTB. Upgrade the utilities, electric service, exterior lighting, water distribution, fire protection, HVAC, and alarm systems. Install anti-terrorism/force protection in pertinent buildings to meet the 220 pounds TNT Level of Protection. Abate asbestos and lead-based paint as needed. | 1,500 |
| Administration Office | 6022 | 1970 | | 2,944 |
| HHC CP | | | | |
| Vehicle Maintenance Shop | 6024 | 1970 | | 4,040 |
| Administration Office (S-4) | 6030 | 1956 | | 1,500 |
| Communications Warehouse | 6016 | 1942 | Upgrade storage buildings to meet standard codes and to provide protection of valuable equipment. | 1,500 |
| Vehicle Service Rack | 6019 | 1970 | | 600 |
| Storage | 6025 | 1970 | | 1,364 |
| | 6070 | 1953 | | 2,960 |
| Latrine | 6041 | 1970 | | 940 |
| Latrine | 6042 | 1970 | | 940 |
| Administration | 6043 | 1970 | | 2,944 |
| Administration | 6044 | 1970 | | 2,944 |
| Administration | 6045 | 1970 | | 2,944 |
| Administration | 6046 | 1970 | | 2,944 |
| Gymnasium Bldg | 6034 | 1986 | Renovate the existing facility. Upgrade electrical circuits and lighting. Upgrade male and female latrines with shower facilities and lockers. Install HVAC system compatible with the building size. Wire building for cable television and multiple drops. | 3,280 |
| Junior Enlisted Quarters | 6012 | 1977 | Construct 21.5 square foot (minimum) walk-in closets with lockable doors. Install service counter with bowl, cabinetry, counter to and dedicated microwave circuit. Replace buildings plumbing system. Reconfigure walls to provide new tub/shower combinations in bathrooms and provide new bath finishes, replace bath exhaust system and lighting. Install water supply cutoff valves in baths. Install cleanouts for sanitary lines. Replace smoke detectors and existing alarm system. Install fire sprinkler system. Replace exterior sleeping and lounge room doors, frames with keyless electronic lock sets. Re-glaze and repair windows to insure operability, energy efficiency and force protection. Replace interior wall finishes in sleeping rooms, | 15,939 |
| Quarters | 6017 | 1977 | | 26,049 |
| Student Dorms | 6038 | 1977 | | 8,840 |
| Enlisted Quarters | 6039 | 1977 | | 14,202 |
| NCO Quarters | | | | |

Table 2-2. Renovation Actions Associated With the Upgrade and Renovation Alternative in Support of the 6th RTB at Camp Rudder on Eglin AFB Cont'd

| Structure | Bldg# | Year Built | Description of Upgrade and Renovation Alternative | Renovation (square feet) |
|--|--------|------------|---|--------------------------|
| Junior Enlisted Quarters | 6012 | 1977 | laundry rooms and lounges. Provide vinyl wall covering where appropriate in rooms. | 15,939 |
| Student Dorms | 6017 | 1977 | | 26,049 |
| Enlisted Quarters | 6038 | 1977 | Replace ceiling tile with suspended painted gypsum board. Replace flooring with carpet in sleeping room; ceramic tile in bathrooms; and quarry tile in laundry rooms. Abate suspected VCT floor tile and mechanical ductwork insulation. Replace lighting with fluorescent and task lighting in sleeping rooms and lounges in ceiling and vanity fixtures in bathrooms. Add ground fault receptacles in bathrooms and at service counters and laundry rooms. Rewire sleeping rooms with updated telephone, cable TV, and computer cable hook-ups. Replace HVAC system with new HVAC/VAV system to include air handling units, ductwork, and individual room controls. Upgrade electrical panels servicing building and separate room circuits. Seal exterior masonry walls to prevent water infiltration. All hazardous materials will be identified and abated, stored, and disposed of in accordance with current laws and regulations. | 8,840 |
| NCO Quarters | 6039 | 1977 | | 14,202 |
| Cont'd | Cont'd | Cont'd | | Cont'd |
| Total Renovation 69,045 square feet | | | | |

2.2.2 No Action Alternative

Under the No Action Alternative, the 6th RTB would not construct new buildings, demolish old buildings, or renovate dormitories. The 6th RTB would continue to operate in aged, deteriorated facilities, some of which are physically deteriorated to the point that they will soon fall down, and are beyond repair without total replacement. However, given the age and dilapidated condition of existing structures, it is likely that these buildings would be demolished or renovated at some point in the future, even if the Proposed Action or the Upgrade and Renovation Alternative is not implemented. Although it is unknown when this might occur, these activities would be conducted and evaluated on an as-needed basis. Additionally, under the No Action Alternative, permanent party personnel and students will be housed in marginal facilities that could result in lower morale and decreased retention rates. Improvements in keeping with the Army's Communities of Excellence program will not be provided that will directly affect the welfare of soldiers working and residing at Camp Rudder.



2.3 COMPARISON OF ALTERNATIVES

Table 2-3 summarizes the issues and potential impacts associated with the alternatives.

Table 2-3. Summary of Issues, Proposed Action and Alternatives, and Potential Impacts

| Issue | Proposed Action | Upgrade and Renovation Alternative | No Action |
|-------------|---|---|--|
| Noise | Noise would result from the use of construction, demolition, and vegetation-clearing equipment. Noise associated with the equipment would be short and intermittent and is not likely to disturb surrounding areas. Additionally, these activities would only occur during the day. As a result, impacts associated with the use of project-related equipment would have minimal contributions to the existing noise environment and should not impact personnel or students at the camp or residents in the adjacent housing area. | Noise associated with this alternative would be contained within existing facilities; therefore, no impacts are expected to occur. | There would be no impacts associated with noise beyond the scope of normal conditions and influences at Camp Rudder. However, it is likely that the proposed buildings would be constructed, demolished or renovated at some point in the future. Although it is unknown when they might occur, these activities are not expected to have an adverse affect on noise. |
| Air Quality | Pollutant emissions associated with the Proposed Action would not exceed the 10-percent threshold of Okaloosa County pollutant emissions, thus resulting in no change to the existing Title V air operation permit for Eglin AFB. Therefore, no impacts to air quality are anticipated. However, any addition of new boilers and emergency generators would require a revision to the Title V permit. Any proposed impacts from automobile transit would not alter the ambient air quality. Therefore, no impacts to air quality are anticipated. | Pollutant emissions associated with this alternative would not exceed the 10-percent threshold of Okaloosa County pollutant emissions; therefore, no impacts are expected to occur. | There would be no impacts associated with air quality beyond the scope of normal conditions and influences at Camp Rudder. However, it is likely that the proposed buildings would be constructed, demolished, or renovated at some point in the future. Although it is unknown when they might occur, these activities are not expected to have an adverse affect on air quality. |

Table 2-3. Summary of Issues, Proposed Action and Alternatives, and Potential Impacts Cont'd

| Issue | Proposed Action | Upgrade and Renovation Alternative | No Action |
|---------------------|---|--|---|
| Hazardous Materials | Potential exists due to impacts from demolition of buildings possibly containing asbestos and lead-based paint. However, with proper removal and handling of these hazardous materials in accordance with applicable regulations, no impacts are expected to occur. | Impacts would be the same as Proposed Action, as removal and handling of hazardous materials would still be required. | Potential impacts may occur as personnel would be exposed to buildings containing lead-based paint and asbestos. However, it is likely that the proposed buildings would be demolished or renovated at some point in the future. Although it is unknown when they might occur, these activities are not expected to have an adverse affect from hazardous materials as long as proper removal and handling of these materials in accordance with applicable regulations occurs. Therefore, no adverse affects are anticipated resulting from the No Action Alternative. |
| Soils/ Erosion | The Proposed Action would not accelerate soil erosion at the proposed site. BMPs would help avoid or reduce any adverse impacts to soils. | This alternative would not accelerate soil erosion, as BMPs would reduce any adverse impacts to soil. | There would be no impacts associated with soils and erosion beyond the scope of normal conditions and influences at Camp Rudder. However, it is likely that the proposed buildings would be constructed, demolished, or renovated at some point in the future. Although it is unknown when they might occur, these activities are not expected to have an adverse affect on soils and erosion as long as all applicable plans and regulatory permits are adhered to and proper BMPs are implemented. |
| Water Quality | The Proposed Action would not adversely impact water quality. No impacts to the water supply are expected. The construction of an on-site stormwater collection and drainage systems will eliminate impacts. | Under this alternative, no construction or demolition would occur. Renovations would take place within existing facilities; therefore, no impacts would occur. | There would be no impacts associated with water quality beyond the scope of normal conditions and influences at Camp Rudder. However, it is likely that the proposed buildings would be constructed, demolished, or renovated at some point in the future. Although it is unknown when they might occur, these activities are not expected to have an adverse affect on water quality as long as all applicable plans and regulatory permits are adhered to and proper BMPs are implemented. |

2.4 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD

The use of temporary facilities on Camp Rudder in lieu of new construction to replace aged and damaged facilities was considered. However, no temporary facilities are currently available and the construction of new temporary facilities would not be cost effective. Additionally, the use of temporary facilities would not allow the 6th RTB to adequately achieve training requirements due

to the high intensity of training conducted. Training conducted by the 6th RTB requires an intricate support network and a high degree of maintenance for equipment, which cannot be adequately achieved from the use of temporary facilities. Therefore, this alternative was not carried forward.

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3. AFFECTED ENVIRONMENT

The affected environment section describes the anthropogenic environment of Eglin AFB and its adjacent communities that have the potential to be impacted by the implementation of the Camp Rudder Master Plan as detailed in Chapter 2. Resource areas addressed are hazardous materials, noise, soils/erosion, water quality, and air quality.

3.1 HAZARDOUS MATERIALS/WASTE

According to the Resource Conservation and Recovery Act (RCRA), Section 6903(5), hazardous materials and waste are defined as substances that, because of “quantity, concentration, or physical, chemical, or infectious characteristics may cause or significantly contribute to increases in mortality or serious illnesses, or pose a substantial threat to human health or the environment.” There are no ERP sites within the project area, and no hazardous materials would be incorporated into buildings during construction or renovation activities. Additionally, there is an underground storage tank (UST) located at Building 6024. This UST would remain in place and in use. Consequently, this section focuses on the identification of the hazardous materials present in buildings to be demolished or renovated.

3.1.1 Asbestos

The USEPA and OSHA regulate asbestos issues. These agencies are responsible for the regulation of environmental exposure to protect workers from asbestos exposure. OSHA is responsible for the health and safety of workers who may be exposed to asbestos in the work place or in conjunction with their careers. The USEPA develops and enforces laws needed to protect the general public from exposure to airborne contaminants that are known to be hazardous to human health (Mesothelioma-Net, 2003).

Asbestos is a naturally occurring mineral whose crystals form long, thin fibers. Asbestos was widely used in manufacturing in the late 1800s because of its insulating properties, its ability to withstand heat and chemical corrosion, and its soft, pliant nature. Three types of asbestos were commonly used in building materials from the late 1800s to 1989 and include:

- Chrysotile (white asbestos): most commonly used form, accounts for about 95 percent of the asbestos used in building materials.
- Amosite (brown asbestos): the second most common form of asbestos, represents approximately 4 percent of the asbestos used in building materials.
- Crocidolite (blue asbestos): least common form of asbestos, accounts for only about 1 percent of the asbestos products.

Building materials and processes that incorporated asbestos included sprayed-on fireproofing, acoustical plaster, pipe, boiler and mechanical equipment insulation, drywall joint compound, asbestos cement siding, roofing shingles and tars, floor tiles and mastic, and electrical wire insulation. In 1989, the USEPA prohibited the use of most commercially available asbestos-containing materials used in the United States. Since that time, there has been a

growing knowledge base of the adverse health effects associated with exposure to airborne asbestos.

Friable (brittle) asbestos becomes hazardous when fibers become airborne and are inhaled. Because of the persistence and small size of asbestos fibers (greater than 5 microns), they become trapped in the lungs for years to later develop into diseases including asbestosis, lung cancer, and mesothelioma. It can take from 10 to 40 years or more for the diseases to develop. A detailed toxicity assessment of asbestos is located in Appendix D.

Asbestos surveys for several buildings at Camp Rudder conducted in April 1989, June 1994, and in February 2005 indicated the presence of asbestos in the several buildings. Table 3-1 shows the relevant asbestos survey results.

The following buildings have not been surveyed: 6019; 6020; 6025; 6034; 6038; 6041; 6043; 6044; 6045; and 6046.

Table 3-1. Project-Related Buildings Asbestos Survey Results at Camp Rudder

| Building Number | Asbestos Presence | Year Surveyed | Asbestos Abatement |
|-----------------|---|---------------|--------------------|
| 6012 | Throughout building | 2005 | None |
| 6016 | Floor tile, siding, roof shingles | 2005 | None |
| 6017 | 1 st and 3 rd floor duct seam sealant | 1994 | None |
| 6018 | Throughout building (floor tiles) | 1989 | None |
| 6019 | No survey conducted | N/A | N/A |
| 6020 | No survey conducted | N/A | N/A |
| 6022 | None present | 1989 | None |
| 6024 | None present | 1989 | None |
| 6025 | No survey conducted | N/A | N/A |
| 6030 | Throughout building (floor tiles) | 1989 | None |
| 6034 | No survey conducted | N/A | None |
| 6038 | Unknown | 1989 | None |
| 6039 | No survey conducted | N/A | N/A |
| 6041 | No survey conducted | N/A | N/A |
| 6042 | Throughout building | 2005 | None |
| 6043 | No survey conducted | N/A | N/A |
| 6044 | No survey conducted | N/A | N/A |
| 6045 | No survey conducted | N/A | N/A |
| 6046 | No survey conducted | N/A | N/A |
| 6070 | None present | 1989 | None |

N/A = Not Applicable

Source: Kauffman, 2005; Kauffman, 2005a

3.1.2 Lead-Based Paint

Lead-based paint (LBP) was commonly used in and on buildings and other structures until 1978. When in good condition, lead-based paint does not pose a health hazard. However when it is in a deteriorated (cracking, peeling, chipping) condition, or damaged by renovation or maintenance activities, it can release lead-containing particles that pose a threat of lead contamination to the environment and a health hazard to workers and building occupants who may inhale or ingest the particles.

Hazards of lead exposure include severe damage to the nervous system, brain, and kidneys in adults and children. In pregnant women, high levels of exposure to lead may cause miscarriage. Children are more sensitive to the effects of lead than adults and may develop blood anemia, kidney damage, colic, muscle weakness, and brain damage, which can potentially cause death following ingestion of lead particles (ATSDR, 1999). A detailed assessment of the toxicity of lead can be found in Appendix D.

No LBP surveys or sampling have been conducted for the buildings identified under the Proposed Action. Consequently, it is unknown whether or not these buildings contain LBP (Kauffman, 2005).

3.2 NOISE

3.2.1 Definition of Resource

Noise is perceived as sound that interrupts or interferes with normal activities or otherwise diminishes the quality of the environment. Noise can be intermittent or continuous, steady or impulsive, and stationary or transient. Stationary noise sources are normally related to specific land uses, such as housing tracts or industrial plants. Transient noise sources move through the environment, either along established paths (e.g., highways and railroads), or randomly (e.g., a bulldozer operating in a large field). People, the places they occupy, and wildlife are noise receptors, meaning they perceive noise and may be affected by it. Places such as schools and hospitals are considered sensitive noise receptors since persons occupying these facilities are more likely to be disturbed by the noise. Noise receptors may exhibit various degrees of response to noise according to the noise type, characteristics of the sound source, their own sensitivity to noise, the time of day, and the distance between them and the sound source.

3.2.2 Existing Conditions

In the project region, ambient noise (the surrounding background noise) currently exists as a result of military aircraft operations, transportation, and other human activities. Many types of civilian and military aircraft operate throughout the region and also make use of the military training airspace overlying the area. Currently people work and live in close proximity to the runway on Camp Rudder.

3.2.3 Noise Measurements and Thresholds

Based on numerous sociological surveys and recommendations of federal interagency councils, the most common benchmark referred to is the day-night average sound level of 65 decibels (dBA [A-weighted sound level]). This threshold is often used to determine residential land use compatibility around airports, highways, or other transportation corridors. Two other average noise levels are also useful:

- A day-night average noise level of 55 dBA was identified by the U.S. Environmental Protection Agency (USEPA, 1974) as a level “ . . . *requisite to protect the public health and welfare with an adequate margin of safety.*” Noise may be heard, but there is no risk to public health or welfare.

- Effects other than annoyance may occur at day-night average noise levels of 75 dBA. This threshold is 10 to 15 dBA below levels at which hearing damage is a known risk (OSHA, 1983). However, it is also a level above which some adverse health effects cannot be categorically discounted.

Public annoyance is the most common impact associated with exposure to elevated noise levels. When subjected to day-night average sound levels of 65 dBA, approximately 12 percent of persons exposed will be “highly annoyed” by the noise. At levels below 55 dBA, the percentage of annoyance is correspondingly lower (less than 3 percent). The percentage of persons annoyed by noise never drops to zero (some people are always annoyed), but at levels below 55 dBA, it is reduced enough to be essentially negligible (Finegold et al., 1994).

The day-night average sound level sums individual noise events and determines the average of the resulting level over a specified length of time, usually a 24-hour period. Thus, it is a composite metric representing the maximum noise levels, the duration of the events, and the number of events that occur. However, this metric also considers the time of day during which noise events occur. This metric adds 10 dB to those events that occur between 10:00 P.M. and 7:00 A.M. to account for the increased intrusiveness of noise events that occur at night when ambient noise levels are normally lower than during the daytime.

3.3 SOILS/EROSION

Soil types in a given locale can determine the stability in an area and help to determine the appropriate use for that location. As soil quality declines, adverse impacts to on-site and off-site environments increase. Therefore, the maintenance of soil quality is important for efficient and productive land management and utilization. Areas most prone to erosion are important when identifying stable and unstable areas. Erosion is based upon slope, soil type, vegetation cover, wind, and nearby water resources (U.S. Air Force, 1995).

The major upland soils of concern are listed in Table 3-2 below and shown on Figure 3-1. For comparative purposes, all primary soils within the project area are listed. Lakeland soils are associated with Dorovan, Udorthents, Urban Land, and Troup soils. Only the Dorovan soils have a high degree of organic content; thus they are considered mucks. Mucks have developed along creek beds. These are soils that typically occur in wet, sandy areas and are composed primarily of decomposed organic matter.

Table 3-2. Soil Types and Characteristics

| Soil Name | Erosion Risk | Attributes | Soil Type |
|---------------|------------------|----------------------------------|-----------|
| Lakeland Sand | Moderate to high | Yellowish brown to grayish brown | Sand |
| Dorovan Muck | Low | Highly organic | Muck |
| Troup Sand | Moderate | Unconsolidated marine sands | Sand |
| Urban Land | Low | Variable | Variable |
| Udorthents | Low | Variable in acidity and texture | Silt Loam |

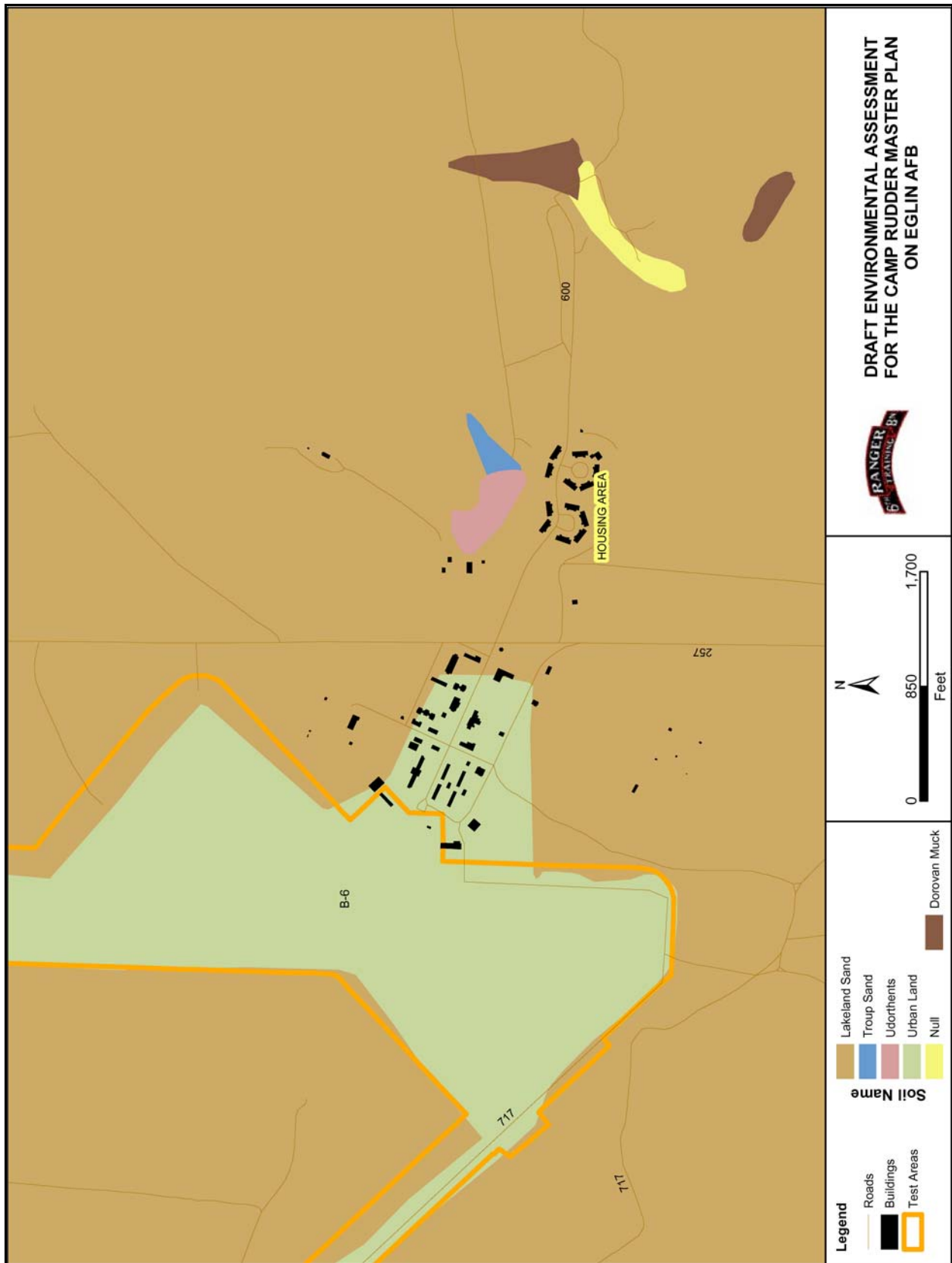


Figure 3-1. Soil Types Located in the Vicinity of the Proposed Action

The Lakeland Sand series is the primary soil type for Eglin AFB. It is characterized by very deep, excessively drained, permeable soils that formed in thick, sandy sediments (USDA, 1995). These soils are abundant on both level and steep uplands and can run up to 80 inches in depth. Sand or fine sand comprises the majority of the entire series; at 10 to 40 inches below the ground, silt and clay make up 5 to 10 percent of the soil. Permeability ratings are moderate to very rapid (6.0 to 20 inches per hour) for Lakeland soils (USDA, 1995). Slopes are primarily 0 to 12 percent.

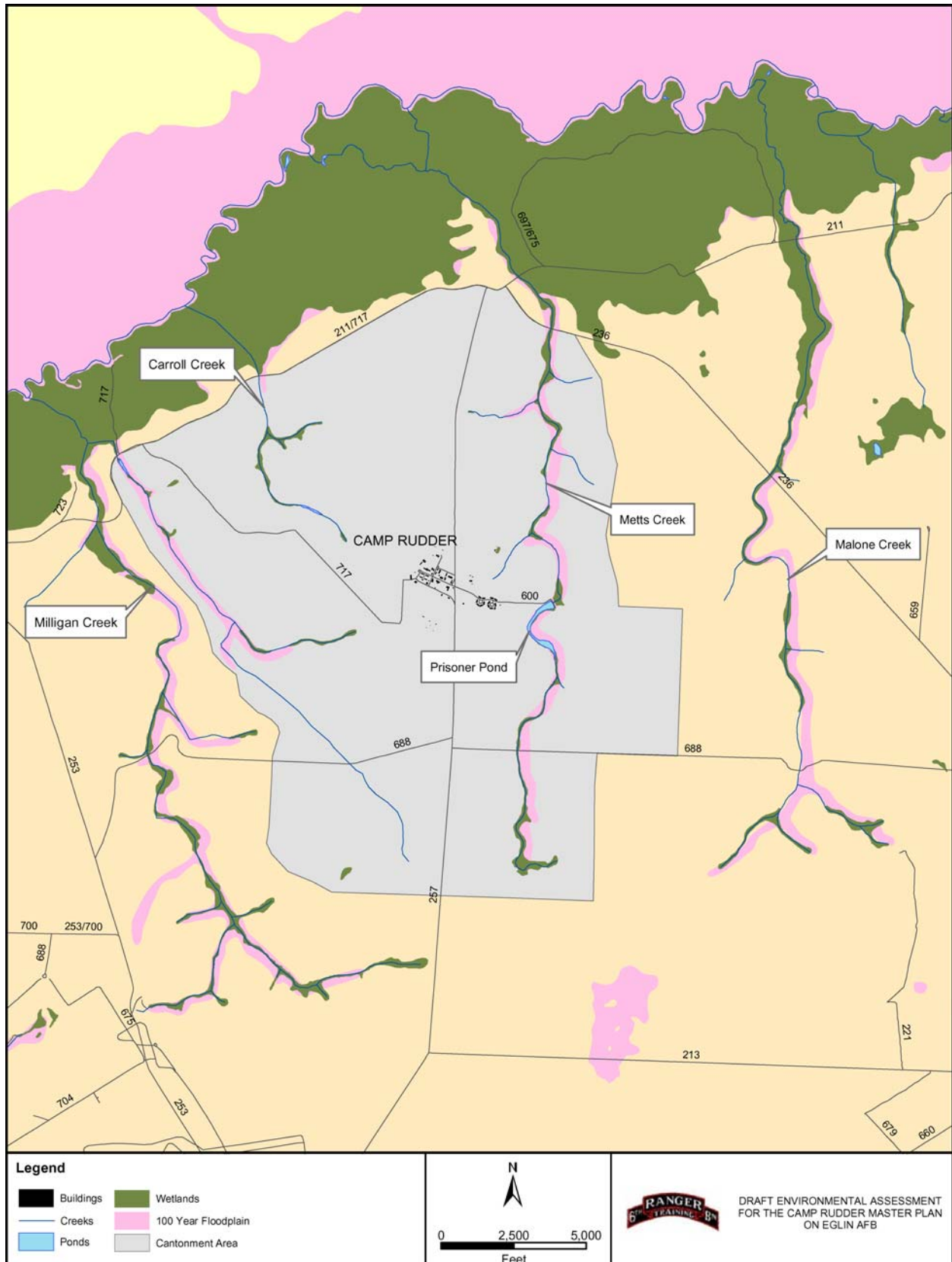
Lakeland sands vary in acidity from medium to very strong. Thus, soil colors vary a fair amount. They range in color from dark, grayish brown to yellowish brown. Lakeland Sand soil series have a moderate susceptibility to erosion. This is due to the high sand content. However, in areas where the soils are mixed with a mucky type, it is less likely to erode since mucks are composed of organic matter and clay that act as an adhesive for holding soils together. Additionally, the less uniform the sediments are, the less chance for erosion. Variation of sediment size with the addition of clay and organic matter helps create soil stability. Slope also affects soil erodibility. Most of the Lakeland soils within the project area have slopes of less than 5 percent. The Lakeland soils lack cohesiveness and have limited water-holding capacity. Consequently, erosion has been particularly substantial on steeper slopes that have been cleared of vegetation for range road construction, target areas, and borrow pits.

Troup soils are well drained, moderately permeable and are formed in sand or loamy marine sediments. These range from nearly level to steep uplands. Slopes range from 0 to 25 percent. Dorovan soils are very deep, poorly drained, moderately permeable soils that have formed in decomposed woody and herbaceous plant remains. They are characterized by broad flat plains that are nearly level (with slopes less than 1 percent). These are organic soils that form primarily along streams and hardwood swamps and thus are highly organic.

Urban Land soil series occurs where 85 percent or more of a land area is covered by streets, parking lots, pavements, and structure. The land is altered so that identification of individual soils is not possible. Grading, filling, and shaping have taken place. Slopes range from 0 to 5 percent. Udorthents are coarse, pumice-like fragments mixed into soil, much like the Urban Land series. Lithic contact is generally within 50 cm of the soil surface. Typically, there is very little slope to these soils (USDA, 1980; USDA, 1995).

3.4 WATER QUALITY

No surface waters lie adjacent to the Proposed Action site. The closest surface water resource is Metts Creek located approximately 740 feet east of the proposed site (Figure 3-2). The State of Florida has developed and retains primacy for surface water quality standards for all waters of the state in accordance with the provisions of the Clean Water Act. The state uses a classification system that classifies each water body based on its suitability for various purposes. The streams near the project area are classified as Class III (recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife). Water quality within the project area is generally good, and no waters that are listed as impaired on the 1998 303(d) list fall within the project area (FDEP, 2005a).



There are drainage ditches located within the vicinity of the proposed project area. However, there is little elevation change in the Proposed Action site area, and water tends to collect and percolate into the soil. Overall drainage in the area is towards Metts creek.

Currently, the Eglin Military Complex operates approximately 125 water wells under 21 Consumptive Use permits authorized by the Northwest Florida Water Management District (NFWFMD) (U.S. Air Force, 2005). Two public supply wells covered under Consumptive Use permits, WR-55 and WR-56, and one abandoned well, WR-200, are located in the proposed project area. Wells WR-55 and WR-56 are 12 inches and 10 inches in diameter, respectively, and are in the Floridan Aquifer at depths of 775 feet and 690 feet, respectively.

3.5 AIR QUALITY

Identifying the affected area for an air quality assessment requires knowledge of sources of air emissions, pollutant types, emissions rates and release parameters, proximity to other emissions sources, and local as well as regional meteorological conditions. Refer to Appendix E for a detailed review of air quality regulations.

Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin and the prevailing meteorological conditions. The levels of pollutants are generally expressed on a concentration basis in units of part per million (ppm) or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). For the air quality analysis, the Region of Influence (ROI) centers on Okaloosa County. This ROI has been chosen since the proposed activities will occur specifically in this county.

Pollutant concentrations are compared to the National Ambient Air Quality Standards (NAAQS) and state air quality standards to determine potential effects. These standards represent the maximum allowable atmospheric concentration that may occur and still protect public health and welfare, with a reasonable margin of safety. The NAAQS identify maximum allowable concentrations for the following criteria pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than or equal to 10 microns in diameter (PM_{10}), and lead (Pb) (40 CFR 50). In the case of SO_2 , the State of Florida has established more stringent standards (FAC 62-204.360 (4)(b)). Details of the NAAQS and the State of Florida air quality requirements are provided in Appendix E.

Based on measured ambient air pollutant concentrations, the USEPA designates whether areas of the U.S. are meeting the NAAQS or not. Those areas demonstrating compliance with the NAAQS are considered “attainment” while those that are not are known as “non-attainment.” Those areas that cannot be classified on the basis of available information as meeting or not meeting the NAAQS for a particular pollutant are “unclassifiable” and are treated as attainment until proven otherwise.

Regional Air Quality

The Florida Department of Environmental Protection (FDEP) operates air quality monitors in various counties throughout the state (FDEP, 2003) including Santa Rosa County. The USEPA

has designated that all counties within the state of Florida are classified as “attainment” for criteria pollutants per FDEP.

The Clean Air Act (CAA) also establishes a national goal of preventing degradation or impairment in attainment areas. As part of the Prevention of Significant Deterioration (PSD) Program, areas were designated as Class I, II, or III. National parks and wilderness areas are designated by Congress as Class I areas, where any appreciable deterioration in air quality is considered significant. Class II areas are those where moderate, well-controlled industrial growth could be permitted. Eglin AFB is in a Class II area. Class III areas allow for greater industrial development. Currently there are no designated Class III areas in the United States. Under the PSD program, before a new major source of air emissions is constructed, its emissions are estimated to determine if significant emissions rate (SER) thresholds are exceeded. If a source is to be modified, then its emissions are evaluated and compared to the SER thresholds to determine if modifications are significant. The SER thresholds are used to ascertain whether pollution controls or air quality dispersion modeling are necessary for the construction project (USEPA, 1990).

Baseline Emissions

An air emissions inventory qualitatively and quantitatively describes the amount of emissions from a facility or within an area. Emissions inventories are designed to locate pollution sources, define the type and size of sources, characterize emissions from each source and estimate total mass emissions generated over a period of time, normally a year. These annual rates are typically represented in tons per year. Inventory data establishes relative contributions to air pollution concerns by classifying sources and determining the adequacy as well as necessity of air regulations. Accurate inventories are imperative for development of appropriate air quality regulatory policy. These inventories include stationary sources and encompass equipment and processes such as boilers, electric generators, surface coating, and fuels handling operations. Mobile sources include motor vehicles, aerospace ground support equipment, and aircraft operations.

For comparison purposes, the USEPA’s 1999 National Emissions Inventory (NEI) data for Okaloosa County is presented in Table 3-3. The county data includes emissions data from point sources (a stationary source that can be identified by name and location); area sources (a point source whose emissions are too small to track individually, such as a home or small office building; or a diffuse stationary source, such as wildfires or agricultural tilling); and mobile sources (any kind of vehicle or equipment with gasoline or diesel engine, airplane, or ship).

Table 3-3. Baseline Emissions Inventory for Okaloosa County

| Okaloosa County (Tons/Year) | | | | | |
|-----------------------------|-----------------|---------|------------------|--------|-----------------|
| Source Type | NO _x | CO | PM ₁₀ | VOC | SO ₂ |
| Point Source | 1,458 | 50,296 | 5,502 | 8,718 | 16 |
| Non-Road | 1,072 | 15,033 | 144 | 1,969 | 115 |
| On-Road | 5,061 | 40,563 | 146 | 4,114 | 192 |
| Area Source | 1,196 | 46,093 | 10,865 | 5,385 | 345 |
| Totals | 8,787 | 151,985 | 16,657 | 20,186 | 668 |

Source: USEPA, 1999

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4. ENVIRONMENTAL CONSEQUENCES

The purpose of this chapter is to analyze the potential impacts of the Proposed Action, the Upgrade and Renovation Alternative, and the No Action Alternative in relation to the issues and resources identified in previous chapters of this document.

Issues include:

- Hazardous Materials.
- Noise.
- Soils/Erosion.
- Water Quality.
- Air Quality.

4.1 HAZARDOUS MATERIALS/WASTE

4.1.1 Proposed Action

Asbestos

This analysis pertains to the demolition of buildings in order to construct new facilities or the renovation of existing facilities. The following buildings have undergone asbestos survey and would require asbestos abatement as set forth in AFI 32-1052, *Facilities Asbestos Management*, prior to demolition or renovation.

| | |
|---------------|---------------|
| Building 6012 | Building 6018 |
| Building 6016 | Building 6030 |
| Building 6017 | Building 6042 |

Currently no survey reports exist for the following buildings. These buildings would require asbestos surveys prior to demolition or renovation.

| | | |
|---------------|---------------|---------------|
| Building 6019 | Building 6038 | Building 6044 |
| Building 6020 | Building 6039 | Building 6045 |
| Building 6025 | Building 6041 | Building 6046 |
| Building 6034 | Building 6043 | |

The following buildings were surveyed and no asbestos was identified.

Building 6022
Building 6024
Building 6070

AFI 32-1052 requires that when safety and budgetary considerations permit, complete removal of asbestos-containing material should be included in military construction program facility projects. Rule 62-257, Asbestos Program, is an air rule that outlines those circumstances under which FDEP is notified when conducting building demolition and/or renovation activities. A licensed contractor must be used when removing asbestos-containing building materials and personnel should adhere to established procedures set forth for the safe handling and transport of these materials as outlined in Chapter 5, Plans, Permits, and Management Actions.

Demolishing the buildings that contain asbestos would negate the potential impacts from asbestos exposure to individuals frequenting the buildings. New facilities constructed will not contain asbestos.

The Eglin AFB Environmental Management Division must review all construction project programming documents, designs, and contracts to ensure that requirements associated with asbestos are met. With management requirements met, there are no anticipated adverse impacts resulting from asbestos contamination under the Proposed Action.

Lead-Based Paint

Currently no data regarding the presence or absence of LBP is available for any facilities projected to be demolished under the Proposed Action (Kauffman, 2005). As a result, all facilities would need to be sampled or surveyed to evaluate the potential for LBP occurrence, and project designs must stipulate appropriate abatement and disposal requirements for LBP (if required), as outlined in Chapter 5 of this document.

LBP-containing materials do not have to be treated as hazardous waste as long as these materials are not removed from a structure prior to demolition and the LBP-containing materials are recycled. If LBP materials are removed to a landfill, the Toxicity Characteristic Leaching Procedure must not exceed 5.0 milligrams per liter (Kauffman, 2004). The USEPA issued a memorandum on 31 July 2000 stating that waste generated as part of LBP activities conducted at residences including single-family homes, apartment buildings, public housing, and military barracks are no longer classified as hazardous wastes but are considered as household waste. Thus, they are excluded from RCRA's hazardous waste management and disposal regulations.

Newly constructed facilities will not contain LBP.

The Eglin AFB Environmental Management Division must review all construction project programming documents, designs, and contracts to ensure that requirements associated with LBP are met. With management requirements met, no anticipated long-term or significant impacts associated with LBP will occur under the Proposed Action.

4.1.2 Upgrade and Renovation Alternative

Asbestos

Under the Upgrade and Renovation Alternative, all facilities listed under the Proposed Action would be renovated; no building demolition would take place. Asbestos handling and abatement

procedures would be the same as those described under the Proposed Action. Consequently, no adverse impacts to human health or the environment associated with asbestos are anticipated.

Lead-Based Paint

Activities associated with the Upgrade and Renovation Alternative would involve only the renovation, rather than demolition, of buildings. Handling and abatement procedures associated with LBP would be the same as those identified under the Proposed Action, and no adverse impacts to human health or the environment are anticipated.

4.1.3 No Action Alternative

Under the No Action Alternative, the activities identified as components of the Camp Rudder Master Plan would not be implemented. However, given the age and dilapidated condition of existing structures, it is likely that these buildings would be demolished or renovated at some point in the future, even if the Proposed Action or the Upgrade and Renovation Alternative is not implemented. Although it is unknown when they might occur, these activities are not expected to have an adverse affect from hazardous materials provided that building surveys are conducted and proper handling of any of these materials takes place in accordance with applicable regulations. Therefore, no adverse affects are anticipated resulting from the No Action Alternative.

4.2 NOISE

4.2.1 Proposed Action

Daily activities at Eglin AFB contribute noise to the region. Aircraft operations and vehicle traffic constitute the greatest on-going sources of noise in the area. However, during the construction and demolition on Camp Rudder, diesel generators, support equipment, and other heavy earth moving equipment would operate on the construction site on a limited basis. Noise resulting from the use of this equipment and other construction activities is addressed below.

Table 4-1 illustrates sound exposure levels (SELs) associated with typical equipment, in varying operating modes (idle power, full power, etc.), considered in the analysis. These SEL values form the basis for the calculation of time-averaged noise levels originating from the construction site.

For the assessment of construction and demolition noise, an “activity area” of approximately 3.5 acres was designated. This estimates the approximate area that would contain most of the equipment operation.

Table 4-1. Typical Equipment Sound Levels

| Equipment | Sound Level (in dBA) Under Indicated Operating Mode ¹ | | |
|------------------|--|------------|-------------------|
| | Idle Power | Full Power | Moving Under Load |
| Dozer | 63 | 74 | 81 |
| Dump Truck | 70 | 71 | 74 |
| Excavator | 62 | 66 | 72 |
| Forklift | 63 | 69 | 91 |
| Front-end loader | 60 | 62 | 68 |
| Grader | 63 | 68 | 78 |
| Sweeper | 64 | 76 | 85 |
| Tractor-trailer | 67 | 78 | 77 |

¹ Measured at 125 feet

Source: U.S. Air Force, 1998

To analyze the potential noise energy at various distances from the sources, the calculations are based on the types of equipment, operating mode, the operating time in that mode, and the location each piece would most likely be in use. The data is used to distribute the total noise throughout the site to determine the total noise levels that emanates off-site.

The time-averaged noise levels at a range of distances from the perimeter of the activity area are summarized in Table 4-2.

**Table 4-2. Calculated Construction and Demolition Noise Levels
Associated with the Proposed Action**

| Distance From Site Edge (feet) | Construction | | Demolition | |
|-----------------------------------|--------------------------|---------------------------|--------------------------|---------------------------|
| | L _{eq(8)} (dBA) | L _{eq(24)} (dBA) | L _{eq(8)} (dBA) | L _{eq(24)} (dBA) |
| 100 | 72.9 | 68.1 | 68.5 | 63.8 |
| 200 | 69.4 | 64.6 | 65.3 | 60.6 |
| 300 | 67.1 | 62.3 | 63.1 | 58.4 |
| 400 | 65.3 | 60.5 | 61.4 | 56.7 |
| 500 | 63.8 | 59.1 | 60.0 | 55.2 |

dBA= A-Weighted Decibels

L_{eq} = the equivalent continuous sound pressure level, or a measure of the average sound pressure level during a period of time (8 or 24 hours), in decibels.

Many factors contribute to the ability or inability for the noise to travel, such as distance from source, atmospheric conditions (temperature and humidity), terrain, and topography. The assumptions for this assessment were conservative in nature, therefore actual sound levels emanating off-site would be expected to be somewhat lower than those shown.

The gym is the closest construction and demolition site to a residential area; it is approximately 750-feet northwest of the housing area. The proximity of the construction to the residence equates to a L_{eq(24)} between 56.3 and 61.1 dBA. The potential levels received at these nearby locations would not negatively impact hearing of residents located at these sites as based on USEPA Protective Noise Levels. However, residents participating in outdoor activities may experience annoyance levels associated with construction at the closest residential site. This annoyance would be short-term and intermittent.

Finally, it should also be noted that the areas considered are already exposed to elevated day-night average noise levels (between 60 and 65 dB) resulting from aviation operations. While the noise from construction activities may be noticed while it is occurring, its overall duration would be relatively brief and would not be expected to significantly alter the acoustic environment of the region. There are no noise issues associated with the construction and demolition of the various facilities at Camp Rudder.

4.2.2 Upgrade and Renovation Alternative

Under the Upgrade and Renovation Alternative, no construction or demolition activities would take place. Renovations to existing structures would occur under this alternative; however, noise would be contained within the structures. Therefore, no noise impacts are anticipated.

4.2.3 No Action Alternative

Under the No Action Alternative, the activities identified as components of the Camp Rudder Master Plan would not be implemented. However, given the age and dilapidated condition of existing structures, it is likely that these buildings would be demolished or renovated at some point in the future, even if the Proposed Action or the Upgrade and Renovation Alternative is not implemented. Although it is unknown when they might occur, these activities are not expected to have an adverse affect on noise. Therefore, no adverse affects are expected from the No Action Alternative.

4.3 SOILS/EROSION

4.3.1 Proposed Action

The predominant soil at the proposed construction sites is Lakeland sand. This soil type tends to erode fairly easily. The Proposed Action involves the construction of a number of structures (see Chapter 2). Construction of the new facilities would require some land clearing of grassed areas (approximately 1 acre).

The project areas may experience erosion due to a combination of high-energy rain events and erosive soils. Because of this erosion potential, exposed soils are extremely vulnerable during demolition, land clearing, and construction activities to runoff, making it necessary to take measures to minimize soil erosion. BMPs for minimizing erosion, sediment runoff, and identified during the permitting process (such as temporary sediment traps/basins, entrenched silt fencing, staked hay bales, and seeding) will be used at the site. Perimeter controls such as entrenched silt fencing and staked hay bales are especially important near low areas and adjacent to drainage ditches. Proper installation, inspection, and maintenance are vital to the effectiveness of these BMPs and will be required under the stormwater construction general permit. Permits, stormwater pollution prevention plans and site plan designs will include site-specific management requirements for erosion and sediment control.

A Stormwater, Erosion, and Sedimentation Control Plan, a Stormwater Pollution Prevention Plan, and construction BMPs (identified in Chapter 5) would be incorporated into the construction process as required by regulations implemented by the FDEP. No adverse impacts associated with soil erosion are anticipated based on the soil characteristics at the site coupled with the

implementation of the BMPs identified in Chapter 5. Thus, under the Proposed Action, the construction of the proposed buildings is not expected to accelerate erosion.

4.3.2 Upgrade and Renovation Alternative

The predominant soils are the same as under the Proposed Action: Lakeland Sand series. Under this alternative, only upgrades and renovations are proposed. The use of heavy equipment for renovations and clearing of debris has the potential to disturb land surfaces. However, no land clearing would be involved under this alternative; therefore, potential impacts to soils and erosion would be less than under the Proposed Action. Implementation of this Upgrade and Renovation Alternative is not expected to accelerate erosion, as BMPs identified in Section 4.3.1 and in Chapter 5 will be implemented.

4.3.3 No Action Alternative

Under the No Action Alternative, the activities identified as components of the Camp Rudder Master Plan would not be implemented. However, given the age and dilapidated condition of existing structures, it is likely that these buildings would be demolished or renovated at some point in the future, even if the Proposed Action or the Upgrade and Renovation Alternative is not implemented. Although it is unknown when they might occur, these activities are not expected to have an adverse affect on soils and erosion as long as all applicable plans and regulatory permits are adhered to and proper BMPs are implemented. As a result, no adverse affects to soils and erosion are anticipated from the No Action Alternative.

4.4 WATER QUALITY

4.4.1 Proposed Action

Potential impacts associated with water resources are related to the potential for an increase in the rate and the volume of stormwater runoff, for an increase in amounts of sediment and pollutant runoff during the proposed building demolition and construction activities, and for increased polluted stormwater runoff from everyday operations within the proposed new and renovated buildings. Proper implementation and maintenance of stormwater control measures would reduce the peak flow and maximum runoff of stormwater to permit-mandated levels and retain the first 1 inch of runoff. A stormwater treatment area will be included into the site plans, and applicable permitting requirements will be satisfied in accordance with Rule 62-25 and the National Pollutant Discharge Elimination System (NPDES). All applicable regulatory requirements will be adhered to, which would serve to either offset or minimize any potential impacts from construction operations.

A Notice of Intent to use the Generic Permit for stormwater discharge under the NPDES must be submitted prior to project initiation according to Rule 62-25. The Proposed Action also requires coverage under the Generic Permit for Stormwater Discharge from Construction Activities that Disturb One or More Acres of Land (Rule 62-621). A comprehensive Stormwater, Erosion, and Sedimentation Control Plan and a Stormwater Pollution Prevention Plan would be incorporated into the final design plan. All appropriate permits would be obtained prior to the commencement

of any ground-disturbing activities. No impacts to water quality are expected from the Proposed Action given the acquisition of the aforementioned permits and the implementation of BMPs.

Exposed demolition debris generated during the Proposed Action may contaminate stormwater runoff with suspended solids and heavy metals. Because of the potential for contamination, it is necessary to minimize pollutant contact with stormwater and, when runoff contamination cannot be avoided, to retain pollutants and polluted water on-site (FDEP, 2005). Designated debris collection areas should be away from site drainage areas and should utilize perimeter controls such as entrenched silt fencing and staked hay bales to prevent stormwater movement off-site. Additionally, timely removal of debris stockpiles will significantly reduce debris contact with stormwater. Waste receptacles, including dumpsters, can be covered to prevent rainwater from entering. Drinking water and wastewater collection/transmission lines will be properly abandoned during demolition of existing facilities.

With the proper implementation, inspection, and maintenance of erosion and sediment control BMPs, impacts to surface water resources from soil runoff from demolition and construction activities are anticipated to be minimal.

In accordance with the Florida Water Conservation Act (Florida Statutes 553.14), activities associated with the Proposed Action would incorporate water conservation measures to the greatest extent possible. Landscaping must be in accordance with Executive Order 12902, *Energy Efficiency and Water Conservation at Federal Facilities*, and applicable Air Force Instructions. Native landscaping and techniques to prevent the introduction and spread of non-native invasive species must be used. The use of drought-resistant techniques, such as introducing native drought-tolerant vegetation, for any landscaping is encouraged. Any plans involving irrigation would be coordinated through 96 CEG/CEVCE prior to implementation. These efforts will protect the Eglin water supply by reducing consumptive uses of water withdrawn from the Floridan Aquifer.

4.4.2 Upgrade and Renovation Alternative

Under the Upgrade and Renovation Alternative, existing buildings would be upgraded through renovation, and no new building construction or demolition would occur. Therefore, no adverse impacts to water quality are expected under this alternative.

4.4.3 No Action Alternative

Under the No Action Alternative, the activities identified as components of the Camp Rudder Master Plan would not be implemented. However, given the age and dilapidated condition of existing structures, it is likely that these buildings would be demolished or renovated at some point in the future, even if the Proposed Action or the Upgrade and Renovation Alternative is not implemented. Although it is unknown when they might occur, these activities are not expected to have an adverse affect on water quality as long as all applicable plans and regulatory permits are adhered to and proper BMPs are implemented. Therefore, no adverse affects are expected from the No Action Alternative.

4.5 AIR QUALITY

This section discusses the potential impacts to air quality as a result of the Proposed Action and Alternatives. For the analysis of the Proposed Action and Upgrade and Renovation Alternative, a threshold of individual pollutant emissions not exceeding 10 percent of the total ROI emissions for each pollutant has been selected (Shipley Associates, 1995). Emissions associated with construction activities are the main issues generated by the Proposed Action and Upgrade and Renovation Alternative, and is the focus of the air analysis. Air quality issues associated with operational activities after the completion of construction are not included in this evaluation.

4.5.1 Proposed Action

Nitrogen oxides (NO_x) and CO constitute the majority of the emissions from construction activities and the project overall. However, construction operations include more than just actual construction of the residential structures. It incorporates grading operations, construction worker trips, stationary equipment (e.g., generators and saws), mobile equipment, residential architectural coatings, and acres paved. Approximately 96 percent of the total PM₁₀ emissions for the project are associated with grading activities and stationary equipment. CO and NO_x are the primary pollutants of concern, constituting 72 percent of overall project emissions. A majority of the CO emissions are associated with stationary equipment (e.g., saws and generators), while the NO_x emissions are primarily associated with mobile sources. Table 4-3 provides details of the project's emissions in comparison to the ROI, while Table 4-4 provides a summary on the basis of activity.

Table 4-3. Proposed Action Annual Project Emissions

| Year | Annual Project Emissions (Tons/Yr) | | | | |
|-----------------------------|------------------------------------|-----------------|-----------------|--------|------------------|
| | CO | NO _x | SO ₂ | VOC | PM ₁₀ |
| 2005 | 22 | 7 | 2 | 2 | 7 |
| Okaloosa County | 151,985 | 8,787 | 668 | 20,186 | 16,657 |
| Percent of County Emissions | 0.01% | 0.08% | 0.25% | 0.01% | 0.04% |

Table 4-4. Proposed Action Project Construction Emissions by Activity

| Source Category | | Emissions (Tons/Yr) | | | | |
|-----------------|------------------------------------|---------------------|-----------------|-----------------|------|------------------|
| | | CO | NO _x | SO ₂ | VOC | PM ₁₀ |
| 2005 | Grading Equipment | 0.03 | 0.11 | 0.01 | 0.01 | 0.01 |
| | Grading Operations | 0.00 | 0.00 | 0.00 | 0.00 | 3.19 |
| | Acres Paved | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Mobile Equipment | 2.80 | 6.67 | 0.83 | 0.61 | 0.54 |
| | Residential Architectural Coatings | 0.00 | 0.00 | 0.00 | 0.16 | 0.00 |
| | Stationary Equipment | 18.98 | 0.49 | 0.86 | 1.51 | 3.75 |
| | Workers' Trips | 0.30 | 0.02 | 0.00 | 0.02 | 0.00 |
| | Totals | 22 | 7 | 2 | 2 | 7 |

Based on FDEP Permit No. 0910031-009-AV, Eglin is a named source under the NSR PSD program; therefore, fugitive road dust emissions associated with the Proposed Action must be evaluated as part of the PSD applicability process. Mobile source emissions, as well as those associated with construction activities, are excluded from the PSD applicability process.

Using conservative estimates of the construction schedule for the Proposed Action, it was determined that the SER for PM₁₀ would not be exceeded; as a result, Eglin should not need to evaluate PM₁₀ emissions for PSD applicability.

In addition to PSD applicability, Permit No. 0910031-009-AV includes facility wide conditions that limit visible emissions at the boundaries of the Eglin reservation. Since the activities associated with Proposed Action are short-term in duration, visible emissions are not expected to exceed the permitted limitation at the boundary of the Eglin Range.

Based on evaluation using the U.S. Air Force Air Conformity Applicability Model (ACAM), the increase in emissions would not exceed the established 10 percent criterion for Okaloosa County emissions on an individual pollutant basis. (Although a conformity determination is not required since Okaloosa County is designated “attainment,” the ACAM was used to provide a level of consistency with respect to emissions factors and calculations.) Therefore, air quality impacts under this alternative would be minimal.

Specific details regarding the assumptions and calculations associated with the emissions estimates are located in Appendix E.

4.5.2 Upgrade and Renovation Alternative

The Upgrade and Renovation Alternative includes renovation of the present structures at Camp Rudder and would have a minimal emissions increase. The actions associated with this alternative would not exceed the 10 percent criterion discussed in Chapter 3. Consequently, air quality impacts under this alternative would be minimal, as with the Proposed Action.

Based on the analysis, the permitting concerns associated with PSD and Title V are eliminated for the same reasons indicated under the Proposed Action.

4.5.3 No Action Alternative

Under the No Action Alternative, the activities identified as components of the Camp Rudder Master Plan would not be implemented. However, given the age and dilapidated condition of existing structures, it is likely that these buildings would be demolished or renovated at some point in the future, even if the Proposed Action or the Upgrade and Renovation Alternative is not implemented. Although it is unknown when they might occur, these activities are not expected to have an adverse affect on air quality. Therefore, no adverse affects are expected from the No Action Alternative.

4.6 CUMULATIVE IMPACTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

4.6.1 Cumulative Impacts

According to the Council on Environmental Quality regulations, cumulative impact analysis in an environmental assessment should consider the potential environmental impacts resulting from “the incremental impacts of the action when added to other past, present, and reasonably

foreseeable future actions regardless of what agency or person undertakes such other actions” (40 CFR 1508.7).

Definition of Cumulative Effects

Cumulative effects may occur when there is a relationship between a Proposed Action and other actions expected to occur in a similar location or during a similar time period. This relationship may or may not be obvious. Actions overlapping with or in close proximity to the Proposed Action can reasonably be expected to have more potential for cumulative effects on “shared resources” than actions that may be geographically separated. Similarly, actions that coincide temporally would tend to offer a higher potential for cumulative effects.

Past and Present Actions Relevant to the Proposed Action and Alternative

In order to decrease installation vulnerability to terrorist attack, a project for the Air Force to provide barriers and deterrents at the Army Ranger Camp (Camp Rudder), Navy Explosive Ordnance Disposal School, Site C-6, Duke Field, and specific locations on Eglin AFB was proposed. Within Camp Rudder, pole and cable barriers will be installed around the facility, jersey barriers will be posted at vulnerable sites within the camp, additional bar swing gates will be installed, and the guard station will be reconfigured. The guard station area will be expanded to allow for entrance and exit lanes, and the station itself will be placed in the center. This project was set forth to meet the criteria and scope specified in Air Force Handbook 32-1084, “Facility Requirements.” An EA was completed for this project and the Finding of No Significant Impact was signed in January 2003.

Reasonably Foreseeable Future Actions

The U.S. Air Force is accelerating the improvement of Military Family Housing (MFH) through privatization. This improvement process involves the demolition, construction, and renovation of MFH units through implementation of the MFH Demolition, Construction, Renovation, and Leasing Program, otherwise known as MFH Privatization, at Eglin AFB and Hurlburt Field. As part of the Proposed Action for the MFH project, 25 housing units located at Camp Rudder would be demolished. No new construction would occur at Camp Rudder. An Environmental Impact Statement (EIS) was initiated in 2004 to assess the impacts of MFH privatization.

Analysis of Cumulative Impacts

Hazardous Materials and Waste

No adverse impacts have been identified under the Proposed Action or the Upgrade and Renovation Alternative that would result in any incremental, cumulative impacts to human health or the environment. The removal and proper disposal of asbestos-containing materials and potential LBP contamination would result in beneficial, long-term impacts to human health and the environment. Consequently, when taken into a regional context (e.g., within the Eglin Reservation and the surrounding community), continued asbestos and LBP abatement could be considered to have a positive cumulative impact on human health and the environment.

Noise

No adverse noise impacts have been identified for the Proposed Action or the reasonably foreseeable future actions. All projects would create only short-term, intermittent increases in noise levels, which would not exceed current levels created by the airfield. Thus, no adverse cumulative impacts would occur.

Soils/Erosion

Past development in various locations of Eglin AFB have likely contributed to erosion and soil loss. However, the extent to which this has occurred is difficult to determine due to the variability of soil types. Implementation of the Proposed Action would involve the utilization of erosion control measures to minimize the potential for erosion. Additionally, no adverse impacts on soils and erosion have been identified in available analyses of the foreseeable future actions. As a result, implementation of the Proposed Action and/or foreseeable future actions would not likely contribute in any appreciable manner to erosion that has occurred in the past so long as BMPs are in place.

Water Quality

Northwest Florida is a rapidly developing area. New development would place increased demands on the local water supply and promote stormwater runoff leading to water quality degradation. Site design plans, safety plans, BMPs, and permits for new developments would need to address these potential problems so that water resources were protected. No adverse impacts on water quality have been identified in available analyses of the foreseeable future actions. As a result, no cumulative impacts associated with water quality are expected to occur.

Air Quality

Emissions associated with the reasonably foreseeable activities would impact air quality; however, it is not anticipated that cumulatively these actions would adversely affect air quality based on the established threshold criterion. Construction activities would be short-term and temporary. Therefore, no cumulative impacts are expected to occur with implementation of the Proposed Action.

4.6.2 Irreversible and Irretrievable Commitment of Resources

NEPA requires that environmental analysis include identification of any irreversible and irretrievable commitment of resources that would be involved in the implementation of the Proposed Action or the Upgrade and Renovation Alternative.

4.6.2.1 Natural Resources

Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the uses of these resources have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result

of the action (e.g., extinction of a threatened or endangered species or the disturbance of a cultural site).

Development of the proposed site may result in an irreversible and/or irretrievable commitment of natural resources as the undeveloped nature of some of the proposed construction sites would be altered. However, these areas could be returned to their existing state if the proposed facilities were removed and the areas were allowed to revert back to its present state. No sensitive species or cultural resources have been identified at this site; therefore, no irreversible and/or irretrievable commitment of these resources is associated with the implementation of the Proposed Action or the Upgrade and Renovation Alternative.

Most environmental consequences are short-term and temporary (e.g., air emissions from construction) or longer lasting but negligible (e.g., air emissions from commuting activities, utility increases). Construction activities would require consumption of limited amounts of materials typically associated with interior and exterior construction (e.g., concrete, wiring, piping, insulation, and windows). The amount of these materials used is not expected to significantly decrease the availability of the resources. Small amounts of nonrenewable resources would be used; however, these amounts are not considered to be appreciable and are not expected to affect the availability of these resources.

4.6.2.2 Commitments to the Project

The analysis of the irreversible and irretrievable commitment of resources has also been interpreted to mean that NEPA planning be conducted such that the proponent (in this case, the 6th RTB and Eglin AFB) does not commit resources towards a project prior to completion of the required environmental process. From this perspective, no such commitment has been made.

Upgrade and Renovation Alternative

No irretrievable or irreversible commitment of resources would occur under the Upgrade and Renovation Alternative.

No Action Alternative

Under the No Action Alternative, the activities identified as components of the Camp Rudder Master Plan would not be implemented. However, given the age and dilapidated condition of existing structures, it is likely that these buildings would be demolished or renovated at some point in the future, even if the Proposed Action or the Upgrade and Renovation Alternative is not implemented. Although it is unknown when they might occur, these activities are not expected to result in an irretrievable or irreversible commitment of resources. Therefore, no irretrievable or irreversible commitment of resources would occur under the No Action Alternative.

5. PLANS, PERMITS, AND MANAGEMENT ACTIONS

The following is a list of plans, permits, and management actions associated with the Proposed Action. The need for these requirements was identified by the environmental impact analysis process for this EA and was developed through cooperation between the proponent and interested parties involved in the Proposed Action. These requirements are, therefore, to be considered as part of the Proposed Action and would be implemented through the Proposed Action's initiation. The proponent is responsible for adherence to and coordination with the listed entities to complete the plans, permits, and management actions.

PLANS

- Site Design Plan
- Stormwater Pollution Prevention Plan
- Stormwater, Erosion, and Sedimentation Control Plan
- Asbestos abatement plan, suggested
- Lead-based paint abatement plan, if needed

PERMITS

- Storm Water Facility Design and Construction Permit
- Generic Permit for Storm Water Discharge from Construction Activities that Disturb One or More Acres of Land (NPDES permit)
- Base Civil Engineering Work Clearance Request, AF Form 103, 19940801 (*EF-V3*)
- Utility Extension Permits
- Revision to Title V Operation Permit

MANAGEMENT ACTIONS

Hazardous Materials

- State notification must be made prior to demolition and a copy of this notice must be sent to 96 CEG/CEVCP at least 10 days prior to demolition. Also, remove any PCB items prior to demolition (such as light ballasts). If you have any questions contact Dale Whittington with 96 CEG/CEVCP at 882-7672.
- Coordinate disposal of hazardous materials with the Eglin Pollution Prevention Section (96 CEG/CEVCP). A Toxicity Characteristic Leaching Procedure (TCLP) test is required for materials associated with demolished buildings.
- Contact 96 CEG/CEVCP Hazardous Materials office about all hazardous materials used in construction projects. All paints, solvents, and adhesives must be approved, documented, and tracked in the Installation Hazardous Materials Management Program.

Plans, Permits, and Management Actions

- Adhere to management requirements outlined within associated regulations and Eglin AFB's Hazardous Waste Management Plan. Contractors are required to adhere to State and Federal regulations for hazardous waste management.
- Adhere to requirements in Rule 62-257, FAC, Asbestos Program.
- Contact Eglin's Environmental Restoration Branch (96 CEG/CEVR) if unusual soil coloration and/or odors are detected and if small arms debris is found in these construction locations.
- All vacant facilities must be surveyed for asbestos; therefore, notify the 96th Aerospace Medicine Squadron, Bioenvironmental Flight (96 AMDS/SGPB) once the facilities are abandoned to coordinate activities.
- When buildings to be demolished are located on or near active ERP sites, contact 96 CEG/CEVR before knocking over the structure.
- Fluorescent bulbs in the buildings that are demolished must be packaged securely and labeled with "Universal Waste, Mercury Lamps" for recycling as determined in Rule 62-737.300, FAC.
- Asbestos fibers are a cancer and lung disease hazard. Current licenses are required by applicable state or local jurisdictions for the removal, transporting, and disposal of asbestos-containing materials.
- Contact CE-EOD immediately upon discovery of any Unexploded Ordnance (UXO) or suspected UXO items while digging.

Asbestos

The following regulations/publications pertain to work practices when performing the demolition and disposal of a building that contains asbestos-containing materials.

- Code of Federal Regulations
 - 29 CFR 1910.1001 - General Industry Standard for Asbestos
 - 29 CFR 1910-134 - Industry Standard for Respiratory Protection
 - 29 CFR 1910.145 - Specifications for Accident Signs/Tags
 - 29 CFR 1910.1200 - Hazard Communication
 - 29 CFR 1910.2 - Access to Employee Exposure and Medical Records
 - 29 CFR 1926-58 - Asbestos, Tremolite, Anthophyllite, and Actinolite (Construction Industry)
 - 40 CFR 61, Subpart M National Emissions Standards for Hazardous Air Pollutants (NESHAP) American National Standard Institute (ANSI) Publications
 - ◆ Z87.1 Occupational and Educational Eye and Face Protection
 - ◆ Z88.2-80 Practices for Respirator Protection
 - ◆ USEPA Guidance for Controlling Asbestos-Containing Materials in Buildings

Plans, Permits, and Management Actions

- ◆ National Institute for Occupational Safety and Health (NIOSH) Respiratory Protection
- U.S. Air Force
 - AFI 32-1052, *Facility Asbestos Management*
 - Air Force Occupational and Environmental Safety, Fire Prevention, and Health (AFOSH) Standard 161-4, *Exposure to Asbestos*

Federal requirements that govern asbestos abatement work or hauling and disposal of asbestos waste materials include, but are not limited to, the following.

- OSHA: U.S. Department of Labor, Occupational Safety and Health Administration regulations including, but not limited to:
 - Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules Title 29, Part 1910, Section 1001 and Part 1926, Section 1101 of the Code of Federal Regulations.
 - Respiratory Protection Title 29, Part 1910, Section 134 of the Code of Federal Regulations.
 - Access to Employee Exposure and Medical Records Title 29, Part 1910, Section 2 of the Code of Federal Regulations.
 - Hazard Communication Title 29, Part 1910, Section 1200 of the Code of Federal Regulations.
 - Specifications for Accident Prevention Signs and Tags Title 29, Part 1910, Section 145 of the Code of Federal Regulations.
- DOT: U.S. Department of Transportation regulations including, but not limited to:
 - Hazardous Substances Title 29, Part 171 and 172 of the Code of Federal Regulations.
- U.S. Environmental Protection Agency
 - NESHAP 40 CFR, Subpart M. Part 61 NESHAP requires 10 working days written notification of removal of quantities of asbestos-containing materials greater than 260 linear feet or 160 square feet.

Standards that govern asbestos abatement work or hauling and disposal of asbestos waste materials include, but are not limited to, the following.

- American National Standards Institute, 1430 Broadway, New York, New York 10018, (212) 354-3300.
 - Fundamentals Governing the Design and Operation of Local Exhaust Systems, Publication Z9.2-79.
 - Practices for Respiratory Protection Publication Z88.2-80. 01092-1.
- USEPA Guidance Documents (information number: (800) 334-8571; order publications (800) 424-9065).

Plans, Permits, and Management Actions

- Guidance for Controlling Asbestos-Containing Materials in Buildings (Purple Book). EPA 560/5-85-024.
- Asbestos in Buildings: National Survey of Asbestos-Containing Friable Materials EPA 560/5-84-006.
- Asbestos in Buildings: Guidance for Service and Maintenance Personnel EPA 560/5-85-018.
- Asbestos Waste Management Guidance EPA 530-SW-85-007.
- Asbestos Fact Book, USEPA Office of Public Affairs.
- Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials.
- A Guide to Respiratory Protection for the Asbestos Abatement Industry USEPA-560-OPTS-86-001.

Lead-Based Paint

The following regulations/publications pertain to work practices when performing the demolition and disposal of a building with materials containing lead-based paint.

- OSHA Standards, Title 29 CFR 1910.1025
- RCRA, 40 CFR 260-282
- 29 CFR 1926.62 Construction Standard
- USEPA, 40 CFR 141 and 142, National Primary Drinking Water Regulations for Lead and Copper
- 40 CFR 61, Subpart M, National Emission Standard for Hazardous Air Pollutants (NESHAP)
- Standard Operating Procedures for Measurement of Lead in Paint Using the Niton XL D-Ray Fluorescence Spectrometer Laboratory, Research Triangle Park, North Carolina
- Department of Housing and Urban Development (HUD), Lead-Based Paint: Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing
- OSHA Publication 3126, Working With Lead in the Construction Industry
- USEPA Residential Lead-Based Paint Hazard Reduction Act of 1992

Soil/Erosion

- Entrenched silt fencing and hay bales would be installed and maintained along the perimeter of the construction site prior to any ground-disturbing activities.
- Silt fencing would be inspected on a weekly basis and after rain events. It would be replaced as needed.
- Cleared areas would be vegetated or mulched once final grade has been established.
- Where applicable, rough grade slopes or use terrace slopes to reduce erosion.
- Inspection and maintenance of BMPs are required under the stormwater construction general permit.

Water Resources

- Coordinate with Eglin's Environmental Engineering Section (96 CEG/CEVCE) for the following.
 - Final storm water design and permitting
 - Drinking water/wastewater extension permits
 - Final backflow preventer design
 - Irrigation plan, if applicable
- Entrenched silt fencing and staked hay bales would be installed and maintained along the perimeter of the construction site prior to any ground-disturbing activities.
- Silt fencing would be inspected on a weekly basis and after rain events. It would be replaced as needed.
- Permits and site plan designs will include site-specific management requirements for erosion and sediment control.
- Entrenched silt fencing and staked hay bales would be installed and maintained along the perimeter of demolition debris stockpile areas.
- Demolition debris stockpiles will be removed in a timely manner.
- Waste receptacles, including dumpsters, will be covered to prevent rainwater from entering.
- Drinking water and wastewater collection/transmission lines will be properly abandoned during demolition of existing facilities.
- The aforementioned BMPs will be inspected and maintained to ensure effectiveness.

Air Quality

- Comply with Eglin's Title V permit and all applicable requirements.
- Revisions must be made to Eglin's Title V permit to include all new boilers and emergency generators installed at Camp Rudder.
- Reasonable precautions would be taken to minimize fugitive particulate emissions during ground-disturbing/construction activities in accordance with Rule 62-296, FAC.
- The 96 CEG/CEVCE Air Quality Program Manager must be notified concerning all emissions sources associated with the proposed facility such as, but not limited to, boilers (size, fuel type, etc.) and generators (horsepower, fuel type, etc.).

Cultural Resources

- Although there are no known eligible resources within the proposed project footprint, inadvertent discovery of cultural resources would be immediately reported to Eglin's Cultural Resources Branch (96 CEG/CEVH).

Plans, Permits, and Management Actions

Safety

- Federal requirements that govern construction activities include, but are not limited to:
 - OSHA: U.S. Department of Labor, Occupational Safety and Health Administration regulations including, but not limited to:
 - ◆ Construction Title 29, Part 1910, Section 12 of the Code of Federal Regulations.

Socioeconomics

- In accordance with EO 13101, Affirmative Procurement (buying products containing recycled materials) should be used if economical and practical.

6. LIST OF PREPARERS

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION (SAIC)

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| Name/Title | Project Role | Qualifications |
|--|---|---|
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| Sherri Baker-Littman Cultural Resources Specialist M.S. Geology | Author | 5 years geology, 14 years environmental science |
| Catherine Brandenburg Document Production | Document Production | 4 years experience document management |
| Stephen Gilmore Range Planner B.S. Environmental Science | Author, DOPAA | 7 years military operational experience, 2 years planning experience |
| Kevin Ironside Division Manager B.S. Microbiology M.S. Environmental Toxicology | Senior Project Manager | 20 years environmental experience, 11 years NEPA experience |
| Christa Jones Environmental Scientist B.S. Biology | Author, Coastal Zone Consistency Determination | 4 years environmental sciences |
| Jason Koralewski Cultural Resources Specialist M.A. Anthropology M.L.S. Archaeology B.A. Anthropology | Author | 12 years experience |
| Henry McLaurine Environmental Scientist M.S. Biology B.S. Environmental Science | Author | 12 years environmental science |
| Michael Nation Environmental Scientist B.S. Environmental Science/Policy, Minor in Geography A.A. General Science | Geographic Information System (GIS) | 3 years experience as an environmental consultant; GIS Arc View applications |
| Amy Sands Environmental Scientist B.S. Environmental Studies | Project Manager | 2 years environmental science |
| Eric Sculthorpe Environmental Engineer M.S. Biological Engineering B.S. Biological Engineering | Author | 9 years environmental engineering |
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List of Preparers

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- , 1995. Soil Survey of Okaloosa County.

APPENDIX A

CULTURAL RESOURCE EVALUATIONS

Site ID 8OK1754
Site Name Building 6070, Fire Shed / Supply and Equipment Warehouse
Survey Name Eglin AFB Historical Building Inventory

Descriptive Narrative

Building 6070 is a one-story structure, located in the Army Ranger Camp at field 6. Today the building is irregular in plan, with approximately 2,960 square feet. As designed, Building 6070 measured 55' by 40' and featured a four-stall truck and apparatus room in the main body of the structure with a shed-roofed shop area along one side. The shop included an office, latrine, and storage area. The four stalls were each 10'1/2" wide, left open on the façade. Roof over the fire truck stalls slants front to back, with the stall room varying from just over 18' high on the façade to 17' at the rear wall. Roof eaves for this high-bay section of Building 6070 are somewhat unusual, with wide overhang and exposed, boxed rafters. The exterior is clad in novelty 1" by 8" wood siding. As constructed, fenestration was 6/6 double-hung, wood-frame, in type. Design and materials for the fire station most closely resembled those from before World War II. Building 6070 sits on a raised, concrete perimeter wall foundation, with a concrete slab. Sometime before 1982, the Air Force added a rear shed-roof extension to Building 6070, 15' by 44'3", adding a long row of open, wooden boat storage bays projecting out from the rear façade (east) in the period between 1982 and the present. The two shed roof wings (original and added) are shallow-pitched, finished in asphalt shingles. Eaves are open with a moderate overhang. Today windows are aluminum, 2/2 double-hung with horizontal muntins and aluminum sash and sills. The entry is also modified, now featuring a single, flush-metal door. The four original truck stalls on the west façade are now partially enclosed. The added open shed shelters boats and equipment, with no functional relationship to the original structure.

Historical Associations [Linked to discussions for Buildings 6023, 6030, and 6040]

Building 6070 is one of five structures, present today, erected at field 6 between 1951 and 1956. The Air Force likely added the building as required support for a biological and chemical warfare (BW-CW) test mission at the field during these years. The other structures that appear to have been associated with the sensitive mission were Buildings 6023 (a small power plant), Building 6030 (a BW-CW laboratory), Building 6031 (original purpose, unresearched), and Building 6040 (an aircraft hangar). Buildings 6030 and 6040 were each of prefabricated type, shipped to site and quickly erected. Building 6070 was also modest in materials and design. Built in 1952, for a total cost of \$11,800, Building 6070 served as basic infrastructure for dangerous testing. In early 1968, during the years when field 6 was a federal prison (1963-1970), the Air Force changed the designation of Building 6070 from that of a fire station to that of a general warehouse for storage and base equipment. In about 1982, Eglin built a new fire station at field 6—Building 6071. The two structures stand side by side at the southwestern corner of the field cantonment.

Bibliographic References

Building 6070, real property card and real property printout for field 6, civil engineering, Eglin Air Force Base; Karen J. Weitze, Lori Lilburn, Christy Dolan, and Angie Gustafson, "Auxiliary Field 6," *Eglin Inventory of Historic Properties FY2000*; miscellaneous drawings, civil engineering, Eglin Air Force Base, key drawings: "Four Stall Fire Shed for Auxiliary Field #6," May 1953, and, "Exterior Painting and Repairing of Buildings at Auxiliary Field No. 6," January 1982; Karen J. Weitze, "Bio-Chemical Testing" and "Installation Buildup during the Early 1950s," *Eglin Air Force Base, 1931-1991*, January 2001.

**Eglin Air Force Base
Okaloosa and Walton Counties
Florida**

**Inventory of Historic Properties
2001-2003**

Part I

Prepared for:

Air Force Materiel Command
Eglin Air Force Base
and
United States Army Corps of Engineers, Fort Worth and Omaha Districts
Fort Worth, Texas, and, Omaha, Nebraska

Prepared by:

Karen J. Weitze, Carrie Gregory, Lori Lilburn and Angie Gustafson
EDAW, Inc.
1420 Kettner Boulevard, Suite 620
San Diego, California 92101

Under contract through Prewitt & Associates, Inc.
7701 N. Lamar, Suite 104
Austin, Texas 75752-1012

October 2003

Jackson Guard Compound

Building 1509
Building 1535
Building 1536

Auxiliary Field 3 and Vicinity

Building 1063
Building 3055

Auxiliary Field 6

Building 6019
Building 6023
Building 6024
Building 6025
Building 6030
Building 6040
Building 6041
Building 6042
Building 6043
Building 6044
Building 6045
Building 6046
Building 6070

Range Fire Lookout Towers

Building 1039
Building 1051
Building 1060
Building 1070



Auxiliary Field 6

Historical Structure Form Florida Site File

SiteID 80K1742
Recorder # 6019
Field Date 10/31/01
Form Date 10/31/01

Site Names BUILDING 6019, BASE SUP. & EQUIP. WHSE.

MultiList1 _____

SurveyName EGLIN AFB HISTORICAL BUILDING INVENTORY

Survey # _____

National Register Category BLDG

LOCATION and IDENTIFICATION

Address ARMY RANGER CAMP, FLD. 6

Cross Streets _____

Nearest City/Town EGLIN AFB

In City Limits No

County: OKALOOSA

Tax Parcel #: _____

SubDivision _____

Block _____ Lot No. _____

Ownership FEDE

Name of Public Tract _____

Route To _____

MAPPING

USGS 7.5' Map Names HOLT

FL

Township: 2N

Range: 25W

Section: _____

34

Irregular

Section: _____

UTM: 16 Easting: 525062 Northing: 3388094

Plat or Other Map Name: _____

DESCRIPTION

Style _____ Exterior Plan RECT Num. of Stories 1

Structural Systems SKST

Foundation: Types SLAB

Foundation materials: COPO

Exterior Fabrics: PRME

Roof Types/Materials: GABL

SKST

PRME

Chimney: No. 0 Materials: _____

Locations: _____

Windows (types, materials, and placements): 1/1 ALUMINUM

Main Entrance (stylistic details) FLUSH MTL

Porches: #open 0 #closed 0 #incised 0 Location _____

Porches roof types: _____

Exterior Ornament: _____

Internal Plan UNSP

Condition: Deteriorated

Surroundings (N=None, S=Some, M=Most, A=All or nearly all)

N

Commercial N

Residential A

Institute

N Rural

Ancillary Features No., type of outbuildings; major landscape features

Archaeological Remains At Site Archaeological form completed? _____

Artifacts or other remains _____

Narrative SEE ATTACHED CONTINUATION SHEET

Site ID 8OK1742
Site Name Building 6019, Base Supply and Equipment Warehouse
Survey Name Eglin AFB Historical Building Inventory

Descriptive Narrative

Building 6019 is a one-story structure covering 600 square feet. The 20' by 30' storage facility is rectangular in plan. The metal-frame structure sits on a concrete footing with a concrete slab floor. The moderately pitched, metal-frame, front gable roof is finished in corrugated metal sheets. The exterior is clad in corrugated metal siding. The windows are aluminum sash, 1/1 double-hung, set on aluminum sills. The main entry is located on the south facade. The entrance is a single, flush-metal door. A concrete step and pad accesses the entry. Three evenly spaced roof vents puncture the ridgeline. Today's doors and fenestration are likely altered.

Historical Associations [Linked to discussions for Buildings 6024, 6025, 6041, 6042, and 6045]

The Army Rangers had first occupied field 6 between 1956 and 1963. The Army had Special Forces teams in Vietnam as of February 1960, with a South Vietnamese ranger-training center at Da Nang. As of September 1962, the Special Forces program shifted from management by the Central Intelligence Agency (CIA), to official status as the United States Army Special Forces (Provisional). During the early 1960s, the key auxiliary fields at Eglin were fields 3, 6, 7, and 9. The Army Rangers reinstituted their amphibious/jungle training camp at field 6 a second time in 1970 to prepare Rangers for deployment to Vietnam, and continue to use field 6 today. Their renewed activities on site at the outset of the 1970s had a pronounced effect on the site. Total buildings recorded on site increased from about 20 to 36 immediately. In 1970, the Air Force acquired six prefabricated metal dormitories, Buildings 6021, 6022, 6043, 6044, 6045 and 6046 (all likely Butler structures), a warehouse (Buildings 6019), vehicle maintenance shops (Buildings 6024, 6025, and 6026), sanitary latrines (Buildings 6041 and 6042), and munitions storage igloos (Buildings 6051, 6052, 6053 and 6055). The "1970" dating for these buildings may indicate new construction during 1969-1970, or may reflect Air Force legal acquisition of property that had actually been built in about 1962 for the cantonment's conversion to a federal prison. As of June 1972, the 1st Ranger Company at field 6 had an authorized strength of 166 men. Air Force personnel constructed Building 6019 at a total cost of \$9,000. Eglin civil engineering staff appears to have been directly responsible for the design of the small, improvised structure. The Army Rangers continued to improve field 6, with approximately 30 buildings added on site between 1977 and the early 1990s.

Bibliographic References

Building 6019, real property card, real property printout for field 6, and miscellaneous drawings, civil engineering, Eglin Air Force Base; Karen J. Weitz, Lori Lilburn, Christy Dolan, and Angie Gustafson, "Auxiliary Field 6," *Eglin Inventory of Historic Properties FY2000*; Norma J. Harris and L. Janice Campbell, *Evaluation of the Army Ranger Camp, Buildings 6003, 6009, 6011, 6018 and 6020*, Draft, September 1998; and Karen J. Weitz: "Installation Buildup during the Early 1950s," [for earlier activities at field 6], *Eglin Air Force Base, 1931-1991*, January 2001.

Historical Structure Form Florida Site File

SiteID 80K1743
Recorder # 6023
Field Date 10/16/01
Form Date 10/31/01

Site Names BUILDING 6023, POWER STATION

MultiList1

SurveyName EGLIN AFB HISTORICAL BUILDING INVENTORY

Survey #

National Register Category BLDG

LOCATION and IDENTIFICATION

Address ARMY RANGER CAMP, FLD. 6

Cross Streets

Nearest City/Town EGLIN AFB

In City Limits No

County: OKALOOSA

Tax Parcel #:

SubDivision

Block Lot No.

Ownership FEDE

Name of Public Tract

Route To

MAPPING

USGS 7.5' Map Names HOLT

FL

Township: 2N

Range: 25W

Section:

34

Irregular

Section:

UTM: 16

Easting:

524916

Northing:

3388179

Plat or Other Map Name:

DESCRIPTION

Style

ExteriorPlan RECT

Num. of Stories 1

Structural Systems CONB

Foundation: Types SLAB

Foundation materials: COPO

ExteriorFabrics: COBL

Roof Types/Materials: GABL

WOOD

Chimney: No. 0 Materials:

Locations:

Windows (types, materials, and placements):

Main Entrance (stylistic details) DBL FLUSH METAL

Porches: #open 0

closed 0

incised 0

Location

Porches roof types:

Exterior Ornament:

Internal Plan UNSP

Condition: Good

Surroundings (N=None, S=Some, M=Most, A=All or nearly all)

N

Commercial

N

Residential

A

Institute

N

Rural

Ancillary Features No., type of outbuildings; major landscape features

Archaeological Remains At Site Archaeological form completed?

Artifacts or other remains

Narrative SEE ATTACHED CONTINUATION SHEET

Historical Structure Form Florida Site File

SiteID 8OK1743
Recorder # 6023
Field Date 10/16/01
Form Date 10/31/01

| HISTORY | | | | | |
|---|---------|------------|----|---------|--|
| Construction Date | 1953 | CIRCA | No | | |
| Architect: (last name first) | UNKNOWN | | | | |
| Builder: (last name first) | UNKNOWN | | | | |
| Moves | No | Dates From | | Date To | |
| Alterations | Yes | Dates | | Date To | |
| Additions | No | Dates | | Date To | |
| Original Uses (Give Dates) | MILI | | | | |
| Intermediate Uses (Give Dates) | MILI | | | | |
| Present Uses (Give Dates) | MILI | | | | |
| Ownership History (especially original owner) | FEDE | | | | |

SURVEYOR'S EVALUATION OF SITE

Historical Associations (ethnic heritage, etc.)
SEE ATTACHED CONTINUATION SHEET

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet)

BUILDING 6023 DOES NOT APPEAR TO MEET THE CRITERIA FOR LISTING IN THE NATIONAL REGISTER DUE TO ITS COMMON DESIGN, LACK OF DISTINCTIVE HISTORICAL ASSOCIATION, AND NON-HISTORIC ALTERATIONS.

CROSS-REFERENCES

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available)

SEE ATTACHED CONTINUATION SHEET

Photographs (REQUIRED) B and W prints 3 x 5, at least one main facade. Label the back of the print with the FSF site number (site name if not available), direction and date of photograph: use pencil. Attach to back of the second to last page with a plastic or coated clip. Location of negatives/neg. Nos.

EAFB

RECORDER

Name (last first) / Address/ Phone/ Affiliation EDAW, Inc. San Diego, CA (619) 233-1454

| DHR USE ONLY | | OFFICIAL EVALUATIONS | | DHR USE ONLY | |
|---------------------|--|-----------------------|-----|--------------|------|
| NR DATE | | KEEPER-NR ELIGIBILITY | yes | no | DATE |
| SHPO-NR ELIGIBILITY | | yes | no | DATE | |
| DELIST DATE | | LOCAL DESIGNATION | | DATE | |
| Local Office: | | | | | |

Site ID 8OK1743
Site Name Building 6023, Power Station
Survey Name Eglin AFB Historical Building Inventory

Descriptive Narrative

Building 6023, a one-story storage structure, is located in the Army Ranger Camp at field 6. The rectangular building measures approximately 12' by 24', and occupies 288 square feet. The concrete block structure sits on a raised, concrete perimeter wall foundation, with a concrete slab. The moderately pitched, wood-frame hip roof is finished in asphalt shingles. Eaves are open with a moderate overhang. The exterior is painted concrete block. Original fenestration and door pattern included two 6/6 double-hung windows bracketing a center-opening double door on the primary façade, with two additional windows in a symmetrical arrangement on the rear façade. Two louvered vents accented the lower halves of each end façade. Today windows and vents have been bricked in on all sides of the structure. Entry is a single wooden door on the north façade. A concrete pad accesses the entry.

Historical Associations [Linked to discussions for Buildings 6030, 6040, and 6070]

Building 6023 is one of six structures at field 6 today erected between 1951 and 1956. The cluster may have supported a single mission, one focused on testing biochemical warfare agents. Activities for biological and chemical munitions were highly classified, with Headquarters Air Force designating key responsibilities to Air Materiel Command and Air Research and Development Command (ARDC) at Wright-Patterson Air Force Base in Dayton, Ohio, and to ARDC at Edwards, Eglin, and Holloman Air Force Bases in California, Florida, and New Mexico. The key structure within the group appears to have been Building 6030, a biological and chemical warfare (BW-CW) laboratory erected on site in late 1955. The other structures still extant in the cluster included Building 6023, a small power station able to provide government-generated power—a power source independent of commercial electricity generation. The Air Force erected Building 6040, a simple, prefabricated aircraft maintenance hangar, in 1952—adding Building 6070, a fire station for structures' emergencies as well as for aircraft crash situations. Buildings 6031 (1955-1956) and Building 6048 (1952-1953) are unresearched here, although Building 6031 is sited immediately across from Building 6030 in the isolated southeastern corner of the field 6 cantonment area and was likely also erected explicitly for a BW-CW mission tied to that of the laboratory housed in Building 6030. The Air Force had flown C-47s in test trials at Avon Park in southern Florida during 1950 and 1951 to test aerial spraying of a biological agent intended to destroy a broad-leaf crop. Experimentation continued with aerial spraying into early 1953, with success at up to an altitude of 2,500 feet. ARDC next established a requirement for an aerial defoliant and accompanying spray canister in 1954. In 1955, ARDC assigned Eglin the mission of related bacteriological warfare tests. Reliable power generation was crucial to the BW-CW 1952-1955 mission at field 6, a mission likely focused on the testing and training toward aerial spraying. As of 1956, the Army Rangers occupied field 6, using the location for training in jungle warfare. Building 6023 was built in 1953, for a total cost of \$4,744. The structure sustained its real property category coding as a power station until May 1971, when the Air Force redesignated Building 6023 as storage for paint and dope.

Bibliographic References

Building 6023, real property card, real property printout for field 6, and miscellaneous drawings, civil engineering, Eglin Air Force Base; and, "Air Force Facility Category Code Descriptions," August 1997. See also, bibliographic entries for Building 6030.

Historical Structure Form Florida Site File

SiteID 80K1744
Recorder # 6024
Field Date 10/31/01
Form Date 10/31/01

Site Names BUILDING 6024, VEHICLE MAINT. SHOP

MultiList1

Survey Name EGLIN AFB HISTORICAL BUILDING INVENTORY

Survey #

National Register Category BLDG

LOCATION and IDENTIFICATION

Address ARMY RANGER CAMP, FLD. 6

Cross Streets

Nearest City/Town EGLIN AFB

In City Limits No

County: OKALOOSA

Tax Parcel #:

SubDivision

Block Lot No.

Ownership FEDE

Name of Public Tract

Route To

MAPPING

USGS 7.5' Map Names HOLT

FL

Township: 2N

Range: 25W

Section:

34

Irregular
Section:

UTM: 16

Easting:

525148

Northing:

3388356

Plat or Other Map Name:

DESCRIPTION

Style

Exterior Plan IRRE

Num. of Stories 1

Structural Systems WF

Foundation: Types SLAB

Foundation materials: COPO

Exterior Fabrics: SDW

Roof Types/Materials: SHED

WOOD

BUIL

Chimney: No. 0 Materials:

Locations:

Windows (types, materials, and placements): 6/6 WOOD FRAME

Main Entrance (stylistic details) METAL GARAGE-TYPE

Porches: #open 1 #closed 0

#incised 0

Location WEST FAÇADE

Porches roof types: FLAT WOODEN

Exterior Ornament:

Internal Plan UNSP

Condition: Good

Surroundings (N=None, S=Some, M=Most, A=All or nearly all)

N

Commercial N

Residential A

Institute

N

Rural

Ancillary Features No., type of outbuildings; major landscape features

Archaeological Remains At Site Archaeological form completed?

Artifacts or other remains

Narrative SEE ATTACHED CONTINUATION SHEET

Historical Structure Form Florida Site File

SiteID 80K1744
Recorder # 6024
Field Date 10/31/01
Form Date 10/31/01

HISTORY

Construction Date 62-70 CIRCA Yes
Architect: (last name first) UNKNOWN
Builder: (last name first) UNKNOWN
Moves No Dates From Date To Orig. Address
Alterations Yes Dates Date To Nature
Additions No Dates Date To Nature
Original Uses (Give Dates) MILI
Intermediate Uses (Give Dates) MILI
Present Uses (Give Dates) MILI
Ownership History (especially original owner) FEDE

SURVEYOR'S EVALUATION OF SITE

Historical Associations (ethnic heritage, etc.)
SEE ATTACHED CONTINUATION SHEET

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet)

BUILDING 6024 DOES NOT APPEAR TO MEET THE CRITERIA FOR LISTING IN THE NATIONAL REGISTER DUE TO ITS COMMON DESIGN, LACK OF DISTINCTIVE HISTORICAL ASSOCIATION, AND NON-HISTORIC ALTERATIONS.

CROSS-REFERENCES

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available)

SEE ATTACHED CONTINUATION SHEET

Photographs (REQUIRED) B and W prints 3 x 5, at least one main facade. Label the back of the print with the FSF site number (site name if not available), direction and date of photograph: use pencil. Attach to back of the second to last page with a plastic or coated clip. Location of negatives/neg. Nos.

EAFB

RECORDER

Name (last first) / Address/ Phone/ Affiliation EDAW, Inc. San Diego, CA (619) 233-1454

| DHR USE ONLY | | OFFICIAL EVALUATIONS | | DHR USE ONLY | |
|--------------|-----------------------|----------------------|---|--------------|----------|
| NR DATE | KEEPER-NR ELIGIBILITY | Y | N | DATE | 10/31/01 |
| DELIST DATE | SHPO-NR ELIGIBILITY | Y | N | DATE | 10/31/01 |
| | LOCAL DESIGNATION | | | DATE | 10/31/01 |
| | Local Office | | | | |

Site ID 8OK1744
Site Name Building 6024, Vehicle Maintenance Shop
Survey Name Eglin AFB Historical Building Inventory

Descriptive Narrative

Building 6024 is a one-story motor pool, located in the Army Ranger Camp at field 6. The building is irregular in plan, with a covered storage area and multiple shed-roof extensions. The main structure measures approximately 40' by 101', and covers 4,040 square feet. The wood-frame building sits on a raised, concrete perimeter wall foundation, with a concrete slab. The moderately pitched, wood-frame shed roof is finished in asphalt shingles. The exterior is clad in wooden siding. Windows are wooden, 6/6 double-hung with wooden sash and sills. Entries include a single, wooden-panel door on the east side, and two aluminum overhead doors at service bays on the north facade. Wooden posts support a wood-frame, flat-roof extension, attached at the west facade. The open shed shelters vehicles and maintenance equipment. Building 6024 is altered today. Eight small storage sheds, of varied types, stand in the maintenance yard associated with the motor pool (with some numbered, and some not.)

Historical Associations [Linked to discussions for Buildings 6019, 6025, 6041, 6042, and 6045]

Building 6024 is clustered directly with Buildings 6025 and 6026, with each supporting vehicle maintenance for the Army Ranger Camp re-established at field 6 in 1970. The simple structure is one of 16 that the Air Force acquired for its Army tenant at the outset of the decade. In 1970, personnel transferred six prefabricated metal dormitories, Buildings 6021, 6022, 6043, 6044, 6045 and 6046 (all likely Butler structures), a warehouse (Buildings 6019), vehicle maintenance shops (Buildings 6024, 6025, and 6026), sanitary latrines (Buildings 6041 and 6042), and munitions storage igloos (Buildings 6051, 6052, 6053 and 6055) for Army use. Personnel constructed Building 6024 at a total cost of \$29,601. The "1970" dating for these buildings may indicate new construction during 1969-1970, or may reflect Air Force legal acquisition of property that had actually been built in about 1962 for the cantonment's conversion to a federal prison. The Rangers had first occupied field 6 between 1956 and 1963. When the Rangers moved from field 7 to field 6 at Eglin in the middle 1950s, the cantonment at field 6 was predominantly one built in the early 1940s. Eleven World War II structures are extant at field 6 today, with early 1950s activities at the field responsible for the addition of another four buildings. The Army Rangers' first occupation of field 6 during the 1956-1962 years in part supported classified testing for the Air Force's bio-chemical warfare program overseen by Air Research and Development Command (see Building 6030). The late 1950s Ranger presence at field 6 had resulted in the erection of another four structures, with one miscellaneous building going in place during the late 1960s after the Army's retraction from the location. The Army Rangers continued to improve field 6, with approximately 30 buildings added on site between 1977 and the early 1990s

Bibliographic References

Building 6024, real property card and real property printout for field 6, civil engineering, Eglin Air Force Base; Karen J. Weitze, Lori Lilburn, Christy Dolan, and Angie Gustafson, "Auxiliary Field 6," *Eglin Inventory of Historic Properties FY2000*; Norma J. Harris and L. Janice Campbell, *Evaluation of the Army Ranger Camp, Buildings 6003, 6009, 6011, 6018 and 6020*, Draft, September 1998; and Karen J. Weitze: "Installation Buildup during the Early 1950s," [for earlier activities at field 6], *Eglin Air Force Base, 1931-1991*, January 2001.

Historical Structure Form Florida Site File

SiteID 80K1745
Recorder # 6025
Field Date 10/31/01
Form Date 10/31/01

Site Names BUILDING 6025, STORAGE SHED

MultiList1

SurveyName EGLIN AFB HISTORICAL BUILDING INVENTORY

Survey #

National Register Category BLDG

LOCATION and IDENTIFICATION

Address ARMY RANGER CAMP, FLD. 6

Cross Streets

Nearest City/Town EGLIN AFB

In City Limits No

County: OKALOOSA

Tax Parcel #:

SubDivision

Block Lot No.

Ownership FEDE

Name of Public Tract

Route To

MAPPING

USGS 7.5' Map Names HOLT

FL

Township: 2N

Range: 25W

Section:

34

Irregular

Section:

UTM: 16

Easting:

525201

Northing:

3388418

Plat or Other Map Name:

DESCRIPTION

Style ExteriorPlan RECT Num. of Stories 1

Structural Systems WF

Foundation: Types SLAB

Foundation materials: COPO

ExteriorFabrics: WOOD

Roof Types/Materials: SHED

WOOD

Chimney: No. 0 Materials:

Locations:

Windows (types, materials, and placements): SINGLE PANE

Main Entrance (stylistic details) FLUSH METAL

Porches: #open 0 # closed 0 # incised 0 Location

Porches roof types:

Exterior Ornament:

Internal Plan UNSP

Condition: Good

Surroundings (N=None, S=Some, M=Most, A=All or nearly all)

N

Commercial N

Residential A

Institute

N

Rural

Ancillary Features No., type of outbuildings; major landscape features

Archaeological Remains At Site Archaeological form completed?

Artifacts or other remains

Narrative SEE ATTACHED CONTINUATION SHEET

Historical Structure Form Florida Site File

SiteID 8OK1745
Recorder # 6025
Field Date 10/31/01
Form Date 10/31/01

HISTORY

Construction Date 1970 CIRCA No
Architect: (last name first) UNKNOWN
Builder: (last name first) UNKNOWN
Moves No Dates From Date To Orig. Address
Alterations No Dates Date To Nature
Additions No Dates Date To Nature
Original Uses (Give Dates) MILI
Intermediate Uses (Give Dates) MILI
Present Uses (Give Dates) MILI
Ownership History (especially original owner) FEDE

SURVEYOR'S EVALUATION OF SITE

Historical Associations (ethic heritage, etc.)
SEE ATTACHED CONTINUATION SHEET

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet)

BUILDING 6025 DOES NOT APPEAR TO MEET THE CRITERIA FOR LISTING IN THE NATIONAL REGISTER DUE TO ITS COMMON DESIGN, LACK OF DISTINCTIVE HISTORICAL ASSOCIATION, AND NON-HISTORIC ALTERATIONS.

CROSS-REFERENCES

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available)

SEE ATTACHED CONTINUATION SHEET

Photographs (REQUIRED) B and W prints 3 x 5, at least one main facade. Label the back of the print with the FSF site number (site name if not available), direction and date of photograph: use pencil. Attach to back of the second to last page with a plastic or coated clip. Location of negatives/neg. Nos.

EAFB

RECORDER

Name (last first) / Address/ Phone/ Affiliation EDAW, Inc. San Diego, CA (619) 233-1454

| DHR USE ONLY | OFFICIAL EVALUATIONS | DHR USE ONLY |
|--------------|-----------------------|--------------|
| NR DATE | KEEPER-NR ELIGIBILITY | DATE |
| | SHPO-NR ELIGIBILITY | DATE |
| DELIST DATE | LOCAL DESIGNATION | DATE |
| | Local Office | |

Site ID 8OK1745
Site Name Building 6025, Storage Shed
Survey Name Eglin AFB Historical Building Inventory

Descriptive Narrative

Building 6025, a one-story storage building, is located in the Army Ranger Camp at field 6. The rectangular structure measures approximately 20' by 50', and occupies 1,000 square feet. The wood-frame building sits on a raised, concrete perimeter wall foundation, with a concrete slab. The moderately pitched, wood-frame shed roof is finished in asphalt shingles. Eaves are open with a moderate overhang. The exterior is clad in tongue-and-groove patterned plywood. Windows are single pane, with wood-frames and surrounds. Entry is a single, flush-metal door on the north façade.

Historical Associations [Linked to discussions for Buildings 6019 and 6024]

Building 6025 is clustered directly with Buildings 6024 and 6026, with each supporting vehicle maintenance for the Army Ranger Camp re-established at field 6 in 1970. The simple structure is one of 16 that the Air Force acquired for its Army tenant at the outset of the decade. In 1970, personnel transferred six prefabricated metal dormitories, Buildings 6021, 6022, 6043, 6044, 6045 and 6046 (all likely Butler structures), a warehouse (Buildings 6019), vehicle maintenance shops (Buildings 6024, 6025, and 6026), sanitary latrines (Buildings 6041 and 6042), and munitions storage igloos (Buildings 6051, 6052, 6053 and 6055) to the Army. Air Force personnel constructed Building 6025 at a minimal total cost of \$918. The "1970" dating for these buildings may indicate new construction during 1969-1970, or may reflect Air Force legal acquisition of property that had actually been built in about 1962 for the cantonment's conversion to a federal prison. The civil engineering group at Eglin likely designed the small structure as an *ad hoc* addition to the motor pool (Building 6024). Building 6025 is one of eight storage sheds associated with the immediate location today. Drawings suggest that the Air Force has added and removed structures within the fenced 350' by 360' motor pool area a number of times.

Bibliographic References

Building 6025, real property card and real property printout for field 6, civil engineering, Eglin Air Force Base; Karen J. Weitze, Lori Lilburn, Christy Dolan, and Angie Gustafson, "Auxiliary Field 6," *Eglin Inventory of Historic Properties FY2000*; Norma J. Harris and L. Janice Campbell, *Evaluation of the Army Ranger Camp, Buildings 6003, 6009, 6011, 6018 and 6020*, Draft, September 1998; and Karen J. Weitze: "Installation Buildup during the Early 1950s," [for earlier activities at field 6], *Eglin Air Force Base, 1931-1991*, January 2001.

Historical Structure Form Florida Site File

SiteID 80K1746
Recorder # 6030
Field Date 10/16/01
Form Date 10/31/01

Site Names BUILDING 6030, BIO. & CHEM. WARFARE LAB.

MultiListI _____

SurveyName EGLIN AFB HISTORICAL BUILDING INVENTORY

Survey # _____

National Register Category BLDG

LOCATION and IDENTIFICATION

Address ARMY RANGER CAMP, FLD. 6

Cross Streets _____

Nearest City/Town _____

In City Limits No

County: OKALOOSA

Tax Parcel #: _____

SubDivision _____

Block _____ Lot No. _____

Ownership FEDE

Name of Public Tract _____

Route To _____

MAPPING

USGS 7.5' Map Names HOLT

FL

Township: 2N

Range: 25W

Section: _____

34

Irregular

Section: _____

UTM: 16 Easting: 525275 Northing: 3387919

Plat or Other Map Name: _____

DESCRIPTION

Style _____ ExteriorPlan RECT Num. of Stories 1

Structural Systems SKST

Foundation: Types SLAB

Foundation materials: COPO

ExteriorFabrics: COBL

PRME

Roof Types/Materials: _____

PRME

Chimney: No. 0 Materials: _____

Locations: _____

Windows (types, materials, and placements): 4 PANE

Main Entrance (stylistic details) DBL FLUSH METAL

Porches: #open 0 # closed 0 # incised 0 Location _____

Porches roof types: _____

Exterior Ornament: _____

Internal Plan UNSP

Condition: Good

Surroundings (N=None, S=Some, M=Most, A=All or nearly all) N

Commercial N

Residential A

Institute

N Rural

Ancillary Features No., type of outbuildings, major landscape features

Archaeological Remains At Site Archaeological form completed? _____

Artifacts or other remains _____

Narrative SEE ATTACHED CONTINUATION SHEET

Historical Structure Form Florida Site File

SiteID 80K1746
Recorder # 6030
Field Date 10/16/01
Form Date 10/31/01

HISTORY

Construction Date 1955 CIRCA No
Architect: (last name first) UNKNOWN
Builder: (last name first) UNKNOWN
Moves No Dates From Date To Orig. Address
Alterations No Dates Date To Nature
Additions No Dates Date To Nature
Original Uses (Give Dates) MILI
Intermediate Uses (Give Dates) MILI
Present Uses (Give Dates) MILI
Ownership History (especially original owner) FEDE

SURVEYOR'S EVALUATION OF SITE

Historical Associations (ethnic heritage, etc.)
SEE ATTACHED CONTINUATION SHEET

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet)

BUILDING 6030 DOES NOT APPEAR TO MEET THE CRITERIA FOR LISTING IN THE NATIONAL REGISTER DUE TO ITS LACK OF DISTINCTIVE HISTORICAL ASSOCIATION.

CROSS-REFERENCES

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available)

SEE ATTACHED CONTINUATION SHEET

Photographs (REQUIRED) B and W prints 3 x 5, at least **one** main facade. Label the back of the print with the FSF site number (site name if not available), direction **and** date of photograph: use pencil. Attach to back of the second to last page with a plastic or coated clip. **Location of negatives/neg. Nos.**

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| NR DATE | KEEPER NR ELIGIBILITY | DATE | PE | DATE | PE |
| | SHPO NR ELIGIBILITY | DATE | PE | DATE | PE |
| DELIST DATE | LOCAL DESIGNATION | DATE | PE | DATE | PE |
| Local Office: | | | | | |

Historical Structure Form Florida Site File

SiteID 8OK1746
Recorder # 6030
Field Date 10/16/01
Form Date 10/31/01

HISTORY

Construction Date 1955 CIRCA No
Architect: (last name first) UNKNOWN
Builder: (last name first) UNKNOWN
Moves No Dates From Date To Orig. Address
Alterations No Dates Date To Nature
Additions No Dates Date To Nature
Original Uses (Give Dates) MILI
Intermediate Uses (Give Dates) MILI
Present Uses (Give Dates) MILI
Ownership History (especially original owner) FEDE

SURVEYOR'S EVALUATION OF SITE

Historical Associations (ethnic heritage, etc.)
SEE ATTACHED CONTINUATION SHEET

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet)

BUILDING 6030 DOES NOT APPEAR TO MEET THE CRITERIA FOR LISTING IN THE NATIONAL REGISTER DUE TO ITS LACK OF DISTINCTIVE HISTORICAL ASSOCIATION.

CROSS-REFERENCES

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available)

SEE ATTACHED CONTINUATION SHEET

Photographs (REQUIRED) B and W prints 3 x 5, at least one main facade. Label the back of the print with the FSF site number (site name if not available), direction and date of photograph: use pencil. Attach to back of the second to last page with a plastic or coated clip. Location of negatives/neg. Nos.

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|--------------|-----------------------|----------------------|--------------|--|
| NR DATE | KEEPER NR ELIGIBILITY | N/A | DATE | |
| | SHPO NR ELIGIBILITY | N/A | DATE | |
| DELIST DATE | LOCAL DESIGNATION | | DATE | |
| | Local Office | | | |

Site ID 8OK1746
Site Name Building 6030, Biological and Chemical Warfare Laboratory
Survey Name Eglin AFB Historical Building Inventory

Descriptive Narrative

Building 6030 is a one-story laboratory, located in the Army Ranger Camp at auxiliary field 6. The rectangular Quonset-hut type structure measures approximately 25' by 60', and occupies 1,500 square feet. The metal-frame building sits on a raised, concrete perimeter wall foundation, with a concrete slab. The metal-frame roof is finished in corrugated metal sheets. The exterior is clad in predominantly in corrugated metal siding, but features a concrete block wainscoting about three feet high for all sides of the building. The curved roof and rear lines of the structure are unusual, with the vertical primary façade of Building 6030 10'9" high, and the rear façade continuously sloped from the apex of the roof curve to the concrete block wainscoting. Total height of Building 6030 is 14'7". Windows are aluminum, 2/2 double-hung with horizontal muntins and aluminum sash and sills, and are located on the east and west facades. Wire grates cover the window openings. Entries include three single, wood-panel doors, located on the north (primary) facade. Canvas awnings shade each entry. As designed and constructed, the interior of Building 6030 featured six rooms and a small corridor. The single large room served as a laboratory, with two of the remaining larger rooms functioning as a glassware washing room and a mechanical equipment room. The three small rooms were an office, a combined toilet and locker room, and a storage room. Building 6030 sits at the edge of an asphalt parking lot.

Historical Associations [Linked to discussions for Buildings 6023, 6040, 6070]

A strong tradition of training for jungle conditions characterized military efforts on the Eglin ranges from 1944 through the Cold War. A "jungle test site" had existed at Eglin during World War II, near Jack's Lake, while Army Rangers had trained at Eglin in conditions simulating Asia as of the early 1950s at auxiliary field 7. In 1956, the Army Rangers again set up an Amphibious/Jungle Training Camp at Eglin, turning to auxiliary field 6 and using this location until 1963. Sharing field 6 with the Army, Navy, and Air Force, the Army predominated, using six buildings for billeting, foreshadowing the exclusive use of the field by its Rangers from 1970 forward (stimulated by the Vietnam War and a sustained presence in South Korea). The three field 6 runways featured two of 1940s length, and one lengthened to 8,000-foot length in the early 1950s. By 1960, facilities at the field included a small hangar, a warehouse, fuel storage, and billeting for 250 men (messing for 575). By 1960, the key auxiliary fields at Eglin were fields 3, 6, 7, and 9.

Building 6030, however, was unusual within those structures erected for the Army Rangers, and was among a rarified small group of buildings at Eglin overall. Planned and built as a laboratory for biological and chemical warfare, Building 6030 supported Headquarters Air Force policy of 1951 that designated Eglin, Edwards, and Holloman Air Force Bases as those installations within the agency that would conduct test work for Air Research and Development Command (ARDC) toward biological and chemical munitions. The Armament Test Division at Eglin, evolving into the Armament Center, would become the primary responsible unit. Incendiary and chemical testing on Eglin's Range 52 during World War II had also moved toward the highly specialized mission, as had the installation's efforts in engineering aircraft tanks for aerial chemical spraying—with tests sites at Eglin's auxiliary fields 8 and 9; at two tracts to the southeast of Eglin for jungle targets at Sumner-Cedar Keys and Ocala; and, on San Jose Island in the Panama Canal Zone. For the ARDC mission at the outset of the Cold War (and of heightened importance during the Korean War), the Air Force placed development responsibilities for biological and chemical weapons at Wright-Patterson Air Force Base, with significant testing at Eglin. ARDC returned to the idea of aerial spraying—particularly for chemical agents that would inhibit plant growth and defoliate. The Air Force flew C-47s in test trials at Avon Park in southern Florida during 1950 and 1951, destroying a broad-leaf crop. Experimentation continued with aerial spraying into early

1953, with success at up to an altitude of 2,500 feet. ARDC next established a requirement for an aerial defoliant and accompanying spray canister in 1954. The American military conducted live-agent tests almost exclusively at the Army's Dugway Proving Ground in Utah during the early 1950s, with noteworthy Air Force support work at Holloman in New Mexico. By mid-1952, however, the Air Force planned for an alternate "hot agent" test site to that at Dugway. Air Materiel Command, handling many of the specialized civil engineering needs of the Air Force (for buildings and structures) at this time, assigned Ralph M. Parsons Company the task of evaluating test facilities—concluding that with improvements, Eglin could provide the range facilities to fulfill this role by about 1958. Parsons stated that Eglin required an instrumented testing range for such agent testing, a biological and chemical test laboratory, and necessary support facilities. Funding for a range, inclusive of a laboratory, was a formal part of the Air Force fiscal year (FY) 1956 funding program.

In the brief period between the Parsons study of 1952 and 1955-1956, Eglin added a Bio-Chemical Branch in its Armament Test Facilities Laboratory, a biological warfare (BW) – chemical warfare (CW) unit in its Directorate of Operations, and, a BW-CW Detachment for the 6570th Chemical & Ordnance Test Group. Simultaneously with the Parsons study for BW-CW facilities for Air Materiel Command, the Air Force and the Army conducted joint suitability tests for antipersonnel agents at Eglin and Dugway—with logistics at Eglin and cluster bomb drops at Dugway, and with the exercise following upon the live testing of animal viruses on the installation's ranges the year before. The Wright Air Development Center at Wright-Patterson orchestrated various aspects of agent research at this same time, procuring refrigerated vans (mobile igloos) for the storage and transport of live agents for tests at Eglin in 1953. In addition to the aerial spray testing of 1954, the Air Force also conducted "bacteriological warfare" tests at Eglin in April 1955. Building 6030, although of "semi-permanent" type in its Quonset-hut like construction, dated to early December 1955, and appears to be a facility set up quickly to support both existing BW-CW testing at Eglin, and to prepare for the arrival of the Army Rangers and their sustained jungle warfare training at auxiliary field 6 as of 1956.

BW-CW facilities known to have been present at Eglin contemporary with Building 6030 at field 6 included several structures on the base's main cantonment. A July 1954 map of Eglin includes a temperature storage building for BW-CW (possibly a refrigerated van), a BW-CW munitions assembly shop, and a BW-CW laboratory. By autumn 1957, the Air Force had removed two of these structures, suggesting that they too were of semi-permanent type. In the munitions area, only the BW-CW laboratory remained. ARDC moved surveillance laboratories to Eglin as well at this time, for work toward anticrop spraying and for testing biological warfare vulnerability. At Eglin, the Air Force Armament Center maintained the responsibility for Phase I-VI BW testing, generally, with the Air Proving Ground handling Phase VII tests for operational suitability. Sometime before the middle 1960s (and again, possibly derivative from the Parsons' recommendations of 1952) Eglin sustained a Biological-Chemical Munitions Test Area at the southern edge of Range 52A for studying the aerial delivery hardware required for chemical and biological weapons (using simulants). By 1966-1968, the Biological-Chemical Divisions of the Air Force Armament Laboratory at Eglin occupied two structures on the main base, Buildings 229 and 232. The "M" building, a botanical laboratory at the near northeast of Range 22 also functioned as the location for cultivating plant specimens for the evaluation of defoliant chemicals and simulants.

The Army Rangers occupied field 6 continuously between 1956 and 1963. The Army had Special Forces teams in Vietnam as of February 1960, with a South Vietnamese ranger training center at Da Nang. As of September 1962, the Special Forces program shifted from management by the Central Intelligence Agency (CIA), to official status as the United States Army Special Forces (Provisional). After the Army Rangers left field 6, the Air Force used the auxiliary field as the site of a federal prison camp for the remainder of the decade. The Rangers reactivated the Amphibious/Jungle Training Camp once more in 1970 to train Rangers before deployment to Vietnam, and continue to use this training area today. In June 1972, the 1st Ranger Company at field 6 had an authorized strength of 166 men.

Building 6030 was built in 1956, for a total cost of \$20,325. The Air Force added the structure immediately before the arrival of the Rangers, during a time of modest expansion at field 6. Building 6030 sits at the far southeast corner of the cantonment for the field, in relative isolation from other structures at the site. While a significant number of wood-frame buildings remained at the field from World War II, only four from the early 1950s are extant at the field today—likely indicative of the numbers actually augmenting the location at the beginning of the Cold War. When the Rangers occupied field 6, another four buildings went in place, still a very small increase. Only as of 1970 did the Air Force improve field 6 with numerous new structures. Air Force category code for Building 6030 changed several times throughout its life, from 310-914, a generic coding for a science laboratory assigned to the “research of advanced development programs.” Coding later became 314-929, 610-961, 610-761, and 171-614. The 314-929 shift appears to that documented for October 1960: still designated a science laboratory, Building 6030 directly supported the exploratory development and evaluations of effectiveness for biological aerial spraying programs. The other three known nomenclature changes came in 1963, 1971, and 1972, with that of 610-761 associated with the building’s use as part of a federal prison maintained at field 6 during 1963 to 1970, and that of 171-164 with its functioning as an Air Training Command (ATC) technical training facility.

Bibliographic References

Building 6030, real property card and real property printout for field 6, civil engineering, Eglin Air Force Base; Karen J. Weitze, Lori Lilburn, Christy Dolan, and Angie Gustafson, “Auxiliary Field 6,” *Eglin Inventory of Historic Properties FY2000*; miscellaneous drawings, civil engineering, Eglin Air Force Base, key drawing: “Interim BW-CW Laboratory. Floor Plan, Schedules & Details,” December 1955; Air Materiel Command, *History of San Antonio Air Materiel Area, Kelly Air Force Base, January – June 1955* (reference to the April 1955 tests at Eglin); Karen J. Weitze, “Bio-Chemical Testing,” “Installation Buildup during the Early 1950s,” “The Role of Special Weapons,” and “Infrastructure, Test, and Exercise for the Vietnam War and the Middle East,” *Eglin Air Force Base, 1931-1991*, January 2001; Karen J. Weitze, “The Bio-Chemical and Nuclear Problem Sets,” *Command Lineage, Scientific Achievement, and Major Tenant Missions*, volume I of *Keeping the Edge: Air Force Materiel Command Cold War Context (1945-1991)*, August 2003, and, Eglin and Hill Air Force Base chapters, *Installations and Facilities*, volume II, *Ibid*; and, Norma J. Harris and L. Janice Campbell, *Evaluation of the Army Ranger Camp, Buildings 6003, 6009, 6011, 6018, and 6020*, Draft 1, September 1998.

Historical Structure Form Florida Site File

SiteID 80K1747
Recorder # 6040
Field Date 10/16/01
Form Date 10/31/01

Site Names BUILDING 6040, MAINTENANCE HANGAR

MultiList1

SurveyName EGLIN AFB HISTORICAL BUILDING INVENTORY

Survey #

National Register Category BLDG

LOCATION and IDENTIFICATION

Address ARMY RANGER CAMP, FLD. 6

Cross Streets

Nearest City/Town

In City Limits No

County: OKALOOSA

Tax Parcel #:

SubDivision

Block Lot No.

Ownership FEDE

Name of Public Tract

Route To

MAPPING

USGS 7.5' Map Names HOLT

FL

Township: 2N

Range: 25W

Section:

34

Irregular

Section:

UTM: 18

Easting:

525010

Northing:

3388300

Plat or Other Map Name:

DESCRIPTION

Style

ExteriorPlan

SQUA

Num. of Stories 1

Structural Systems SKST

Foundation: Types SLAB

Foundation materials: COPO

Exterior Fabrics: PRME

PRME

Roof Types/Materials:

Chimney: No. 0

Materials:

Locations:

Windows (types, materials, and placements): 9 PANE

Main Entrance (stylistic details)

Porches: #open 0

closed

0

incised

0

Location

Porches roof types:

Exterior Ornament:

Internal Plan UNSP

Condition: Good

Surroundings (N=None, S=Some, M=Most, A=All or nearly all)

N

Commercial

N

Residential

A

Institute

N

Rural

Ancillary Features No., type of outbuildings; major landscape features

Archaeological Remains At Site Archaeological form completed?

Artifacts or other remains

Narrative SEE ATTACHED CONTINUATION SHEET

Historical Structure Form Florida Site File

SiteID 8OK1747
Recorder # 6040
Field Date 10/16/01
Form Date 10/31/01

HISTORY

Construction Date 1952 CIRCA No
Architect: (last name first) UNKNOWN
Builder: (last name first) UNKNOWN
Moves No Dates From Date To Orig. Address
Alterations No Dates Date To Nature
Additions No Dates Date To Nature
Original Uses (Give Dates) MILI
Intermediate Uses (Give Dates) MILI
Present Uses (Give Dates) MILI
Ownership History (especially original owner) FEDE

SURVEYOR'S EVALUATION OF SITE

Historical Associations (ethnic heritage, etc.)
SEE ATTACHED CONTINUATION SHEET

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet)

BUILDING 6040 DOES NOT APPEAR TO MEET THE CRITERIA FOR LISTING IN THE NATIONAL REGISTER DUE TO ITS COMMON DESIGN AND LACK OF DISTINCTIVE HISTORICAL ASSOCIATION.

CROSS-REFERENCES

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available)

SEE ATTACHED CONTINUATION SHEET

Photographs (REQUIRED) B and W prints 3 x 5, at least one main facade. Label the back of the print with the FSF site number (site name if not available), direction and date of photograph: use pencil. Attach to back of the second to last page with a plastic or coated clip. Location of negatives/neg. Nos.

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| NR DATE | SHPO NR ELIGIBILITY | DATE | DATE | DATE | DATE |
| DELIST DATE | LOCAL DESIGNATION | DATE | DATE | DATE | DATE |
| DATE | Local Office | DATE | DATE | DATE | DATE |

Site ID 8OK1747
 Site Name Building 6040, Maintenance Hangar
 Survey Name Eglin AFB Historical Building Inventory

Descriptive Narrative

Building 6040 is a one-story prefabricated hangar, located at auxiliary field 6. The rectangular structure measures approximately 60' by 100' 5", and occupies 6,025 square feet. The steel-frame building sits on a raised, concrete perimeter wall foundation, with a concrete slab hardstand. The moderately pitched, metal-frame roof is finished with corrugated galvanized steel sheets. The exterior is clad in a similar manner. Windows are aluminum, with horizontal muntins and aluminum sash and sills. Wire grates cover the window openings. Entry is a double, flush-metal door on the west side, located at the location of a walled-in bay door. A double, flush-metal door is located on the east façade, and a single metal door opens on the south façade.

Historical Associations [Linked to discussions for Buildings 6023, 6030, and 6070]

Erected as a generic, prefabricated maintenance hangar, Building 6040 is one of five structures extant at field 3 from the 1951-1956 years. The other buildings newly constructed during this period include Building 6030, a biological and chemical warfare (BW-CW) laboratory; Building 6023, a small power plant; and Building 6070, a fire and crash station. (Use for Building 6031, built simultaneously with Building 6030, is of unresearched original use, but was also likely tied to the BW-CW mission.) Eglin was the premier Air Force installation supporting biological and chemical agent testing during the early and middle 1950s, with components of the overall mission also assigned to Wright-Patterson Air Force Base in Ohio, Edwards Air Force Base in Southern California, and Holloman Air Force Base in New Mexico. Eglin had sustained a role in development and proofing of aerial spray canisters for aircraft as of late World War II. This particular mission re-emerged for Eglin during the Korean War Building, and specifically is referenced for activities at field 6. Aerial defoliant testing, with an emphasis on proof testing aircraft canisters and their dispersion of biological agents, appears to have been the major activity for BW-CW research at field 6 during 1951-1956. The Armament Center at Eglin returned to a similar mission, Ranch Hand, for the Vietnam War in 1961. The Air Force needed a hangar at field 6 for the test aircraft, most likely a converted C-47. Building 6040, like Building 6030, is a structure erected quickly, with intentions that the building would be temporary. Possibly a hangar manufactured by Butler or Armco, Building 6040 was built in 1952, for a total cost of \$21,245. Both companies made prefabricated hangars of this type during the early 1950s, with Butler Manufacturing the dominant company supplying the Air Force. Eglin coded Building 6040 as a general maintenance hangar until 1972, afterwards listing the structure as a general training facility (and, as a training facility assigned to Air Training Command).

Bibliographic References

Building 6040, Building 6030, real property card for field 6, civil engineering, Eglin Air Force Base; Karen J. Weitze: "Bio-Chemical Testing," "Installation Buildup during the Early 1950s," "The Role of Special Weapons," "Infrastructure, Test, and Exercise for the Vietnam War and the Middle East," and "Weapons for Limited Warfare," *Eglin Air Force Base, 1931-1991*, January 2001; "The Bio-Chemical and Nuclear Problem Sets," *Command Lineage, Scientific Achievement, and Major Tenant Missions*, volume I of *Keeping the Edge: Air Force Materiel Command Cold War Context (1945-1991)*, August 2003; "Prefabricated, Mobilization Infrastructure," *Cold War Infrastructure for Strategic Air Command*, November 1999; and, "First Generation Alert Hangars," *Cold War Infrastructure for Air Defense*, November 1999.

Historical Structure Form Florida Site File

SiteID 8OK1748
Recorder # 6041
Field Date 10/31/01
Form Date 10/31/01

Site Names BUILDING 6041, SANITARY LATRINE

MultiList1 _____

SurveyName EGLIN AFB HISTORICAL BUILDING INVENTORY

Survey # _____

National Register Category BLDG

LOCATION and IDENTIFICATION

Address ARMY RANGER CAMP, FLD. 6

Cross Streets _____

Nearest City/Town EGLIN AFB

In City Limits No

County: OKALOOSA

Tax Parcel #: _____

SubDivision _____

Block _____ Lot No. _____

Ownership FEDE

Name of Public Tract _____

Route To _____

MAPPING

USGS 7.5' Map Names HOLT

FL

Township: 2N

Range: 25W

Section: _____

34

Irregular

Section: _____

UTM: 16

Easting: _____

524996

Northing: _____

3388102

Plat or Other Map Name: _____

DESCRIPTION

Style _____

Exterior Plan RECT

Num. of Stories 1

Structural Systems CONB

Foundation: Types SLAB

Foundation materials: COPO

Exterior Fabrics: COBL

Roof Types/Materials: GABL

WOOD

PRME

Chimney: No. 0

Materials: _____

Locations: _____

Windows (types, materials, and placements): 1/1 W/ CONCRETE SILL

Main Entrance (stylistic details) WOOD PANEL

Porches: #open 0

closed 0

incised 0

Location _____

Porches roof types: _____

Exterior Ornament: _____

Internal Plan UNSP

Condition: Good

Surroundings (N=None, S=Some, M=Most, A=All or nearly all) N

Commercial N

Residential A

Institute N

Rural

Ancillary Features No., type of outbuildings; major landscape features

Archaeological Remains At Site Archaeological form completed? _____

Artifacts or other remains _____

Narrative SEE ATTACHED CONTINUATION SHEET

Historical Structure Form Florida Site File

SiteID 80K1748
Recorder # 6041
Field Date 10/31/01
Form Date 10/31/01

HISTORY

Construction Date 62-70 CIRCA Yes
 Architect: (last name first) UNKNOWN
 Builder: (last name first) UNKNOWN
 Moves No Dates From Date To Orig. Address
 Alterations No Dates Date To Nature
 Additions No Dates Date To Nature
 Original Uses (Give Dates) MILI
 Intermediate Uses (Give Dates) MILI
 Present Uses (Give Dates) MILI
 Ownership History (especially original owner) FEDE

SURVEYOR'S EVALUATION OF SITE

Historical Associations (ethnic heritage, etc.)
 SEE ATTACHED CONTINUATION SHEET

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet)

BUILDING 6041 DOES NOT APPEAR TO MEET THE CRITERIA FOR LISTING IN THE NATIONAL REGISTER DUE TO ITS COMMON DESIGN AND LACK OF DISTINCTIVE HISTORICAL ASSOCIATION.

CROSS-REFERENCES

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available)

SEE ATTACHED CONTINUATION SHEET

Photographs (REQUIRED) B and W prints 3 x 5, at least one main facade. Label the back of the print with the FSF site number (site name if not available), direction and date of photograph: use pencil. Attach to back of the second to last page with a plastic or coated clip. Location of negatives/neg. Nos.

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| NR DATE | KEEPER NR ELIGIBILITY | Y | N | DATE | 7/7/02 |
| 7/7/02 | SHPO NR ELIGIBILITY | Y | N | DATE | 7/7/02 |
| DELIST DATE | LOCAL DESIGNATION | | | DATE | 7/7/02 |
| | Local Office | | | | |

Site ID 8OK1748
Site Name Building 6041, Sanitary Latrine
Survey Name Eglin AFB Historical Building Inventory

Descriptive Narrative

Building 6041, a one-story sanitary latrine, is located in the Army Ranger Camp at field 6. The rectangular structure measures 20' by 48'. The concrete block building sits on a raised, concrete perimeter wall foundation, with a concrete slab. The moderately pitched, wood-frame gable roof is finished in asphalt shingles. Horizontal wood siding details the gable ends for the structure. One metal ventilator sits on the roof. Eaves are boxed with a moderate overhang. The exterior is painted. Windows are aluminum, 1/1 double-hung with aluminum sash and poured concrete sills. Entry is a single, wooden door on the south side, with a wood-framed screen door. A concrete pad accesses service bays. Building 6041 is identical to Building 6042, erected on site together.

Historical Associations [Linked to discussions for Buildings 6042, 6043, 6044, 6045, and 6046]

Field 6 served as a location for biological and chemical warfare testing during the first half of the 1950s, subsequently occupied by the Army Rangers between 1956 and 1963, and again as of 1970, as a jungle warfare training camp. Building 6041 and 6042, paired sanitary latrines, have real property files indicating construction simultaneous with four prefabricated (possibly Butler) metal dormitories, Buildings 6043, 6044, 6045, and 6046. The Rangers had reactivated the Amphibious/Jungle Training Camp at field 6 in 1970 to train Rangers before deployment to Vietnam, and continue to use this training area today. Interestingly, Air Force records list 16 new structures for the Army tenant at the turn of the decade. The "1970" dating may indicate new construction during 1969-1970, *or* may reflect Air Force legal acquisition of property that had actually been built in about 1962 for the cantonment's conversion to a federal prison. Real property annotations suggest "relocation," but most likely this wording indicates formal takeover of buildings already standing on site. Eglin civil engineering drawing numbers for Buildings 6041-6046 also include "62" as their lead identifier—typically indicative of a construction date by year (or, year completed). Field 6 served as a federal prison from 1963 into 1970. In June 1972, the 1st Ranger Company at field 6 had an authorized strength of 166 men. The Air Force valued Building 6041 at \$14,390.

Bibliographic References

Building 6041, real property card, real property printout, and miscellaneous drawings for field 6, civil engineering, Eglin Air Force Base; Karen J. Weitze, "The Role of Special Weapons" and "Infrastructure, Test, and Exercise for the Vietnam War and the Middle East," *Eglin Air Force Base, 1931-1991*, January 2001; and, Norma J. Harris and L. Janice Campbell, *Evaluation of the Army Ranger Camp, Buildings 6003, 6009, 6011, 6018, and 6020*, Draft 1, September 1998.

Historical Structure Form Florida Site File

SiteID 80K1749
Recorder # 6042
Field Date 10/31/01
Form Date 10/31/01

Site Names BUILDING 6042, SANITARY LATRINE

MultiList1

SurveyName EGLIN AFB HISTORICAL BUILDING INVENTORY

Survey #

National Register Category BLDG

LOCATION and IDENTIFICATION

Address ARMY RANGER CAMP, FLD. 6

Cross Streets

Nearest City/Town EGLIN AFB

In City Limits No

County: OKALOOSA

Tax Parcel #:

SubDivision

Block Lot No.

Ownership FEDE

Name of Public Tract

Route To

MAPPING

USGS 7.5' Map Names HOLT

FL

Township: 2N

Range: 25W

Section:

34

Irregular

Section:

UTM: 16

Easting:

525012

Northing:

3388136

Plat or Other Map Name:

DESCRIPTION

Style

ExteriorPlan RECT

Num. of Stories 1

Structural Systems CONB

Foundation: Types SLAB

Foundation materials: COPO

ExteriorFabrics: COBL

Roof Types/Materials: GABL

WOOD

Chimney: No. 0 Materials:

Locations:

Windows (types, materials, and placements): 1/1 W/ CONCRETE SILL

Main Entrance (stylistic details) WOOD PANEL

Porches: #open 0 # closed 0

incised 0

Location

Porches roof types:

Exterior Ornament:

Internal Plan UNSP

Condition: Good

Surroundings (N=None, S=Some, M=Most, A=All or nearly all)

N

Commercial

N

Residential

A

Institute

N

Rural

Ancillary Features No., type of outbuildings; major landscape features

Archaeological Remains At Site Archaeological form completed?

Artifacts or other remains

Narrative SEE ATTACHED CONTINUATION SHEET

Site ID 8OK1749
Site Name Building 6042, Sanitary Latrine
Survey Name Eglin AFB Historical Building Inventory

Descriptive Narrative

Building 6042, a one-story sanitary latrine, is located in the Army Ranger Camp at Field B-6. The rectangular structure measures approximately 20' by 48'. The concrete block building sits on a raised, concrete perimeter wall foundation, with a concrete slab. The moderately pitched, wood-frame gable roof is finished in asphalt shingles. Horizontal wood siding details the gable ends for the structure. One metal ventilator sits on the roof. Eaves are boxed with a moderate overhang. The exterior is painted. Windows are aluminum, 1/1 double-hung with aluminum sash and poured concrete sills. Entry is a single, wooden door on the south side, with a wood-framed screen door. A concrete pad access service bays. Building 6041 is identical to Building 6042, erected on site together.

Historical Associations [Linked to discussions for Buildings 6041, 6043, 6044, 6045, and 6046]

Field 6 served as a location for biological and chemical warfare testing during the first half of the 1950s, subsequently occupied by the Army Rangers between 1956 and 1963, and again as of 1970, as a jungle warfare training camp. Building 6041 and 6042, paired sanitary latrines, have real property files indicating construction simultaneous with four prefabricated (possibly Butler) metal dormitories, Buildings 6043, 6044, 6045, and 6046. The Rangers had reactivated the Amphibious/Jungle Training Camp at field 6 in 1970 to train Rangers before deployment to Vietnam, and continue to use this training area today. Interestingly, Air Force records list 16 new structures for the Army tenant at the turn of the decade. The "1970" dating may indicate new construction during 1969-1970, *or* may reflect Air Force legal acquisition of property that had actually been built in about 1962 for the cantonment's conversion to a federal prison. Real property annotations suggest "relocation," but most likely this wording indicates formal takeover of buildings already standing on site. Eglin civil engineering drawing numbers for Buildings 6041-6046 also include "62" as their lead identifier—typically indicative of a construction date by year (or, year completed). Field 6 served as a federal prison from 1963 into 1970. In June 1972, the 1st Ranger Company at field 6 had an authorized strength of 166 men. The Air Force valued Building 6041 at \$14,390.

Bibliographic References

Building 6041, real property card, real property printout, and miscellaneous drawings for field 6, civil engineering, Eglin Air Force Base; Karen J. Weitze, "The Role of Special Weapons" and "Infrastructure, Test, and Exercise for the Vietnam War and the Middle East," *Eglin Air Force Base, 1931-1991*, January 2001; and, Norma J. Harris and L. Janice Campbell, *Evaluation of the Army Ranger Camp, Buildings 6003, 6009, 6011, 6018, and 6020*, Draft 1, September 1998.

Historical Structure Form Florida Site File

SiteID 80K1749
Recorder # 6042
Field Date 10/31/01
Form Date 10/31/01

HISTORY

Construction Date 62-70 CIRCA Yes
 Architect: (last name first) UNKNOWN
 Builder: (last name first) UNKNOWN
 Moves No Dates From Date To Orig. Address
 Alterations No Dates Date To Nature
 Additions No Dates Date To Nature
 Original Uses (Give Dates) MILI
 Intermediate Uses (Give Dates) MILI
 Present Uses (Give Dates) MILI
 Ownership History (especially original owner) FEDE

SURVEYOR'S EVALUATION OF SITE

Historical Associations (ethnic heritage, etc.)
 SEE ATTACHED CONTINUATION SHEET

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet)

BUILDING 6042 DOES NOT APPEAR TO MEET THE CRITERIA FOR LISTING IN THE NATIONAL REGISTER DUE TO ITS COMMON DESIGN AND LACK OF DISTINCTIVE HISTORICAL ASSOCIATION.

CROSS-REFERENCES

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available)

SEE ATTACHED CONTINUATION SHEET

Photographs (REQUIRED) B and W prints 3 x 5, at least one main facade. Label the back of the print with the FSF site number (site name if not available), direction and date of photograph: use pencil. Attach to back of the second to last page with a plastic or coated clip. Location of negatives/neg. Nos.

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|---------------------------|--|--------------------|
| NR DATE <u> </u> | KEEPER-NR ELIGIBILITY: <u>y</u> <u>n</u> <u>pe</u> <u>il</u> | DATE <u> </u> |
| <u> </u> | SHPO-NR ELIGIBILITY: <u>y</u> <u>n</u> <u>pe</u> <u>il</u> | DATE <u> </u> |
| DELIST DATE <u> </u> | LOCAL DESIGNATION: <u> </u> | DATE <u> </u> |
| <u> </u> | Local Office: <u> </u> | |

Historical Structure Form Florida Site File

SiteID 8OK1750
Recorder # 6043
Field Date 10/31/01
Form Date 10/31/01

Site Names BUILDING 6043, AIRMEN DORMITORY
Survey Name EGLIN AFB HISTORICAL BUILDING INVENTORY
National Register Category BLDG

MultiList1
Survey #

LOCATION and IDENTIFICATION

Address ARMY RANGER CAMP, FLD. 6
Cross Streets
Nearest City/Town EGLIN AFB In City Limits No
County OKALOOSA Tax Parcel #:
SubDivision Block Lot No.
Ownership FEDE
Name of Public Tract
Route To

MAPPING

USGS 7.5' Map Names HOLT FL
Township: 2N Range: 25W Section: 34 Irregular Section:

UTM: 16 Easting: 525042 Northing: 3388145

Plat or Other Map Name:

DESCRIPTION

Style Exterior Plan RECT Num. of Stories 1
Structural Systems SKST
Foundation: Types SLAB Foundation materials: COPO
Exterior Fabrics: PRME
Roof Types/Materials: GABL SKST PRME
Chimney: No. 0 Materials: Locations:
Windows (types, materials, and placements): ALUMINUM FRAME
Main Entrance (stylistic details) FLUSH METAL
Porches: #open 0 #closed 0 #incised 0 Location
Porches roof types:
Exterior Ornament:
Internal Plan UNSP Condition: Good
Surroundings (N=None, S=Some, M=Most, A=All or nearly all) N Commercial N Residential A Institute N Rural
Ancillary Features No., type of outbuildings; major landscape features
Archaeological Remains At Site Archaeological form completed?
Artifacts or other remains
Narrative SEE ATTACHED CONTINUATION SHEET

Site ID 8OK1750
Site Name Building 6043, Airmen Dormitory
Survey Name Eglin AFB Historical Building Inventory

Descriptive Narrative

Building 6043 is a prefabricated dormitory, with components designed and fabricated by the Butler Manufacturing Company. The structure is located in the Army Ranger Camp at auxiliary field 6, Biancur Field. The rectangular structure measures 24' by 122'8", and occupies 2,944 square feet. The metal-frame building sits on a raised, concrete perimeter wall foundation, with a concrete slab. The moderately pitched, metal-frame front gable roof is finished in corrugated metal siding featuring raised seams. Eaves are boxed with very little overhang. The exterior is clad in pressed metal siding featuring a pattern of flat-faced, double raised vertical strips, alternating with a single vertical strip. Windows are aluminum, 2/2 double-hung and aluminum sash and sills. Entries include one single and one double flush-metal door, located at each end of the structure. Concrete pads access the entries. Personnel erected Building 6043 in 1970. The dormitory is identical to Buildings 6044, 6045, and 6046, and may also be identical to Buildings 6021 and 6022. Doors and fenestration are altered.

Historical Associations [Linked to discussions for Buildings 102, 103, 6044, 6045, and 6046]

Exact lineage for Building 6043 remains unknown. The structure is identical in footprint and square footage to five other buildings erected at field 6, Buildings 6021, 6022, 6044, 6045, and 6046. Existing drawings for the buildings—as well as structural details, however, strongly suggest mixed construction for Buildings 6021, 6022, 6043, 6044, 6045, and 6046, with selected components dating between 1952 and 1958. Butler buildings of this type appear in journals like *The Military Engineer* as of 1952, with nearly identical window placement and size immediately beneath the eave line, as well as highly similar end entry spacing, to that of Building 6043. The type of prefabricated sheathing and fascia sheets, however, are much different, with those delineating the buildings at field 6 more typical of the 1960s than earlier. In addition, drawings for Building 6043 include several for details of Butler's "Model III Shelter," dating to September 1958. Butler designed and manufactured the Model III Shelter for the Bomarc interceptor missile, in test as one prototype launcher erected at Site A-15 on Santa Rosa Island in 1958. The Model III Shelter was the "economy" version tried for a Bomarc launcher, with Models I, II, IVA, IVB, and V designed by J. Gordon Turnbull and Boeing, and each including significant reinforced concrete components. Eglin personnel appear to have dismantled the Model III Bomarc launcher on Santa Rosa Island, reusing its rigid-frame, roof support angles in the construction of the prefabricated dormitories at field 6. Real estate files also indicate unspecified relocation activities of 1962, linked to Building 6032. The Air Force erected Building 6043 using new and existing Butler materials, at a total cost of \$5,756. The "1970" dating may indicate new construction during 1969-1970, or may reflect Air Force legal acquisition of property that had actually been built in about 1962 for the cantonment's conversion to a federal prison.

Bibliographic References

Building 6043, real property card and miscellaneous drawings (particularly, Butler Manufacturing, "Roof Support Angles, Model III Shelter," 26 September 1958), civil engineering, Eglin Air Force Base; *The Military Engineer*, September-October 1952; Stephanie J. Carroll, *Bomarc: The Missile Test and Training Facilities*, July 1999; Karen J. Weitze, Lori Lilburn, Christy Dolan, and Angie Gustafson, *Eglin Inventory of Historic Properties FY2000*.

Historical Structure Form Florida Site File

SiteID 80K1750
Recorder # 6043
Field Date 10/31/01
Form Date 10/31/01

HISTORY

Construction Date 62-70 CIRCA Yes
 Architect: (last name first) BUTLER MFG. (ATTRIBUTED)
 Builder: (last name first) UNKNOWN
 Moves No Dates From Date To Orig. Address
 Alterations Yes Dates Date To Nature FENESTRATION AND ENTRIES
 Additions No Dates Date To Nature
 Original Uses (Give Dates) MILI
 Intermediate Uses (Give Dates) MILI
 Present Uses (Give Dates) MILI
 Ownership History (especially original owner) FEDE

SURVEYOR'S EVALUATION OF SITE

Historical Associations (ethnic heritage, etc.)
 SEE ATTACHED CONTINUATION SHEET

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet)

BUILDING 6043 DOES NOT APPEAR TO MEET THE CRITERIA FOR LISTING IN THE NATIONAL REGISTER DUE TO ITS LACK OF DISTINCTIVE HISTORICAL ASSOCIATION AND NON-HISTORIC ALTERATIONS.

CROSS-REFERENCES

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available)

SEE ATTACHED CONTINUATION SHEET

Photographs (REQUIRED) B and W prints 3 x 5, at least one main facade. Label the back of the print with the FSF site number (site name if not available), direction and date of photograph: use pencil. Attach to back of the second to last page with a plastic or coated clip. Location of negatives/neg. Nos.

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| | | SHPO-NR ELIGIBILITY | y n pe u | DATE |
| DELIST DATE | | LOCAL DESIGNATION | | DATE |
| | | Local Office | | |

Historical Structure Form Florida Site File

SiteID 8OK1751
Recorder # 6044
Field Date 10/31/01
Form Date 10/31/01

Site Names BUILDING 6044, AIRMEN DORMITORY

MultiList1

Survey Name EGLIN AFB HISTORICAL BUILDING INVENTORY

Survey #

National Register Category BLDG

LOCATION and IDENTIFICATION

Address ARMY RANGER CAMP, FLD. 6

Cross Streets

Nearest City/Town EGLIN AFB

In City Limits No

County: OKALOOSA

Tax Parcel #:

SubDivision

Block Lot No.

Ownership FEDE

Name of Public Tract

Route To

MAPPING

USGS 7.5' Map Names HOLT

FL

Township: 2N

Range: 25W

Section:

34

Irregular
Section:

UTM: 16

Easting:

524997

Northing:

3388164

Plat or Other Map Name:

DESCRIPTION

Style

Exterior Plan RECT

Num. of Stories 1

Structural Systems SKST

Foundation: Types SLAB

Foundation materials: COPO

Exterior Fabrics: PRME

Roof Types/Materials: GABL

SKST

PRME

Chimney: No. 0 Materials:

Locations:

Windows (types, materials, and placements): ALUMINUM FRAME

Main Entrance (stylistic details) FLUSH METAL

Porches: #open 0 #closed 0

#incised 0

Location

Porches roof types:

Exterior Ornament:

Internal Plan UNSP

Condition: Good

Surroundings (N=None, S=Some, M=Most, A=All or nearly all)

N

Commercial N

Residential A

Institute

N

Rural

Ancillary Features No., type of outbuildings; major landscape features

Archaeological Remains At Site Archaeological form completed?

Artifacts or other remains

Narrative SEE ATTACHED CONTINUATION SHEET

Site ID 8OK1751
Site Name Building 6044, Airmen Dormitory
Survey Name Eglin AFB Historical Building Inventory

Descriptive Narrative

Building 6044 is a prefabricated dormitory, with components designed and fabricated by the Butler Manufacturing Company. The structure is a one-story dormitory located in the Army Ranger Camp at field 6. Building 6044 features a rectangular footprint, measures 24' by 122'8", and occupies 2,944 square feet. The metal-frame building sits on a raised, concrete perimeter wall foundation, with a concrete slab. The moderately pitched, metal-frame front gable roof is finished in corrugated metal siding. Eaves are boxed with very little overhang. The exterior is clad in pressed metal siding. Windows are aluminum, 2/2 double-hung and aluminum sash and sills. Entries include one single and one double flush-metal door, located at each end of the structure. Concrete pads access the entries. Personnel erected Building 6044 in 1970. The dormitory is identical to Buildings 6044, 6045, and 6046, and may also be identical to Buildings 6021 and 6022. Doors and fenestration are altered.

Historical Associations [Linked to discussions for Buildings 102, 103, 6043, 6045, and 6046]

Exact lineage for Building 6044 remains unknown. The structure is identical in footprint and square footage to five other buildings erected at field 6, Buildings 6021, 6022, 6043, 6045, and 6046. The Air Force is suggested as having used components from Butler buildings of 1952-1958, as well as new prefabricated materials, to erect a Butler structure in ca.1962-1970 (see Building 6043). The Army Air Forces had initiated construction at field 6 in 1941, with substantial completion by 1943. During World War II, field 6 supported the assembly, maintenance, and repair of technical equipment required for adjacent gunnery training ranges, with three 4,000-foot runways. During the earliest Cold War years, activities at field 6 were mixed, including those of Air Defense Command for the Air Force as well as assigned missions by the Army and Navy. The Air Force lengthened one of the runways at field 3 to 8,000 feet early in the decade. In 1952, the Army Rangers had set up an amphibious/jungle training operation at Eglin's field 7, operating the site in conjunction with its Infantry School at Fort Benning in Georgia. As of 1956, the Army moved its Ranger camp from field 7 to field 6, and using this location until 1963. As of 1970 forward, the Army Rangers acquired exclusive use of field 6. Facilities at field 6 before 1960 included a small hangar, a warehouse, fuel storage, and billeting for 250 men (messing for 575). The Air Force employed 800-series and theater-of-operation (T.O.) wood-frame "temporaries" from World War II for warehousing, recreation, and billeting at field 6 during the 1950s (Buildings 6001, 6002, 6005, 6007, 6009, 6011, 6016, 6018, and 6020). The Air Force erected Building 6044 at field 6 at a total cost of \$5,756.

Bibliographic References

Building 6044, real property card and miscellaneous drawings (particularly, Butler Manufacturing, "Roof Support Angles, Model III Shelter," 26 September 1958), civil engineering, Eglin Air Force Base; *The Military Engineer*, September-October 1952; Stephanie J. Carroll, *Bomarc: The Missile Test and Training Facilities*, July 1999; Karen J. Weitze, Lori Lilburn, Christy Dolan, and Angie Gustafson, *Eglin Inventory of Historic Properties FY2000*; and Karen J. Weitze: "Installation Buildup during the Early 1950s," *Eglin Air Force Base, 1931-1991*, January 2001.

Historical Structure Form Florida Site File

SiteID 80K1751
Recorder # 6044
Field Date 10/31/01
Form Date 10/31/01

HISTORY

Construction Date 62-70 CIRCA Yes
Architect: (last name first) BUTLER MFG. (ATTRIBUTED)
Builder: (last name first) UNKNOWN
Moves No Dates From Date To Orig. Address
Alterations Yes Dates Date To Nature FENESTRATION AND ENTRIES
Additions No Dates Date To Nature
Original Uses (Give Dates) MILI
Intermediate Uses (Give Dates) MILI
Present Uses (Give Dates) MILI
Ownership History (especially original owner) FEDE

SURVEYOR'S EVALUATION OF SITE

Historical Associations (ethnic heritage, etc.)
SEE ATTACHED CONTINUATION SHEET

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet)

BUILDING 6044 DOES NOT APPEAR TO MEET THE CRITERIA FOR LISTING IN THE NATIONAL REGISTER DUE TO ITS LACK OF DISTINCTIVE HISTORICAL ASSOCIATION AND NON-HISTORIC ALTERATIONS.

CROSS-REFERENCES

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available)

SEE ATTACHED CONTINUATION SHEET

Photographs (REQUIRED) B and W prints 3 x 5, at least one main facade. Label the back of the print with the FSF site number (site name if not available), direction and date of photograph: use pencil. Attach to back of the second to last page with a plastic or coated clip. Location of negatives/neg. Nos.

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|--------------|-----------------------|----------------------|--------------|--|
| NR DATE | KEEPER NR ELIGIBILITY | YES / NO / PENDING | DATE | |
| | SHPO NR ELIGIBILITY | YES / NO / PENDING | DATE | |
| DELIST DATE | LOCAL DESIGNATION | | DATE | |
| | Local Office | | | |

Historical Structure Form Florida Site File

SiteID 80K1752
Recorder # 6045
Field Date 10/31/01
Form Date 10/31/01

Site Names BUILDING 6045, AIRMEN DORMITORY

MultiList1

SurveyName EGLIN AFB HISTORICAL BUILDING INVENTORY

Survey #

National Register Category BLDG

LOCATION and IDENTIFICATION

Address ARMY RANGER CAMP, FLD. 6

Cross Streets

Nearest City/Town EGLIN AFB

In City Limits No

County: OKALOOSA

Tax Parcel #:

SubDivision

Block Lot No.

Ownership FEDE

Name of Public Tract

Route To

MAPPING

USGS 7.5' Map Names HOLT

FL

Township: 2N

Range: 25W

Section:

34

Irregular

Section:

UTM: 16 Easting: 525026 Northing: 3388110

Plat or Other Map Name:

DESCRIPTION

Style ExteriorPlan RECT Num. of Stories 1

Structural Systems SKST

Foundation: Types SLAB

Foundation materials: COPO

ExteriorFabrics: PRME

Roof Types/Materials: GABL

SKST

PRME

Chimney: No. 0 Materials:

Locations:

Windows (types, materials, and placements): ALUMINUM FRAME

Main Entrance (stylistic details) FLUSH METAL

Porches: #open 0 # closed 0 # incised 0 Location

Porches roof types:

Exterior Ornament:

Internal Plan UNSP

Condition: Good

Surroundings (N=None, S=Some, M=Most, A=All or nearly all)

N

Commercial

N

Residential

A

Institute

N

Rural

Ancillary Features No., type of outbuildings; major landscape features

Archaeological Remains At Site Archaeological form completed?

Artifacts or other remains

Narrative SEE ATTACHED CONTINUATION SHEET

Site ID 8OK1752
Site Name Building 6045, Airmen Dormitory
Survey Name Eglin AFB Historical Building Inventory

Descriptive Narrative

Building 6045 is a prefabricated dormitory, with components designed and fabricated by the Butler Manufacturing Company. The structure is a one-story dormitory located in the Army Ranger Camp at field 6. Building 6045 features a rectangular footprint, measures 24' by 122'8", and occupies 2,944 square feet. The metal-frame building sits on a raised, concrete perimeter wall foundation, with a concrete slab. The moderately pitched, metal-frame front gable roof is finished in corrugated metal siding. Eaves are boxed with very little overhang. The exterior is clad in pressed metal siding. Windows are aluminum, 2/2 double-hung and aluminum sash and sills. Entries include one single and one double flush-metal door, located at each end of the structure. Concrete pads access the entries. Personnel erected Building 6045 in 1970. The dormitory is identical to Buildings 6043, 6044, and 6046, and may also be identical to Buildings 6021 and 6022. Doors and fenestration are altered.

Historical Associations [Linked to discussions for Buildings 102, 103, 6043, 6044, and 6046]

Exact lineage for Building 6045 remains unknown. The structure is identical in footprint and square footage to five other buildings erected at field 6, Buildings 6021, 6022, 6043, 6044, and 6046. The Air Force is suggested as having used components from Butler buildings of 1952-1958, as well as new prefabricated materials, to erect a Butler structure in ca.1962-1970 (see Building 6043). The Army Rangers used field 6 as an amphibious/jungle training base camp as of this year, to prepare forces for deployment to Vietnam. While the Rangers had first occupied field 6 between 1956 and 1963, their renewed activities on site at the outset of the 1970s had a much more pronounced effect on the site. Eleven World War II structures are extant at field 6 today, with the early-to-mid 1950s activities at the field requiring the addition of another six buildings. The Army Rangers first occupation of field 6 stimulated no immediate new construction, although the Air Force added one munitions igloo for the site at the end of the decade. Two miscellaneous buildings went in place during the middle and late 1960s, after the Army's retraction from the location. The number of buildings defining the cantonment at field 6 increased dramatically in 1970, with the return of the Rangers. In that year, Air Force personnel erected 16 new structures for their Army tenant. The Army Rangers continued to improve field 6, with approximately 30 buildings added on site between 1977 and the early 1990s. Personnel erected Building 6045 at field 6 at a total cost of \$5,756. Other structures adapted in 1970 for the Rangers included the five additional Butler structures (used as dormitories and a recreation facility), a warehouse (Buildings 6019), vehicle maintenance shops (Buildings 6024, 6025, and 6026), sanitary latrines (Buildings 6041 and 6042), and munitions storage igloos (Buildings 6051, 6052, 6053 and 6055).

Bibliographic References

Building 6045, real property card, real property printout for field 6, and miscellaneous drawings (particularly, Butler Manufacturing, "Roof Support Angles, Model III Shelter," 26 September 1958), civil engineering, Eglin Air Force Base; *The Military Engineer*, September-October 1952; Stephanie J. Carroll, *Bomarc: The Missile Test and Training Facilities*, July 1999; Karen J. Weitze, Lori Lilburn, Christy Dolan, and Angie Gustafson, *Eglin Inventory of Historic Properties FY2000*; and Karen J. Weitze: "Installation Buildup during the Early 1950s," *Eglin Air Force Base, 1931-1991*, January 2001.

Historical Structure Form Florida Site File

SiteID 8OK1752
Recorder # 6045
Field Date 10/31/01
Form Date 10/31/01

HISTORY

Construction Date 62-70 CIRCA Yes
Architect: (last name first) BUTLER MFG. (ATTRIBUTED)
Builder: (last name first) UNKNOWN
Moves No Dates From Date To Orig. Address
Alterations Yes Dates Date To Nature FENESTRATION AND ENTRIES
Additions No Dates Date To Nature
Original Uses (Give Dates) MILI
Intermediate Uses (Give Dates) MILI
Present Uses (Give Dates) MILI
Ownership History (especially original owner) FEDE

SURVEYOR'S EVALUATION OF SITE

Historical Associations (ethnic heritage, etc.)
SEE ATTACHED CONTINUATION SHEET

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet)

BUILDING 6045 DOES NOT APPEAR TO MEET THE CRITERIA FOR LISTING IN THE NATIONAL REGISTER DUE TO ITS LACK OF DISTINCTIVE HISTORICAL ASSOCIATION AND NON-HISTORIC ALTERATIONS.

CROSS-REFERENCES

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available)

SEE ATTACHED CONTINUATION SHEET

Photographs (REQUIRED) B and W prints 3 x 5, at least one main facade. Label the back of the print with the FSF site number (site name if not available), direction and date of photograph: use pencil. Attach to back of the second to last page with a plastic or coated clip. Location of negatives/neg. Nos.

EAFB

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Name (last first) / Address/ Phone/ Affiliation EDAW, Inc. San Diego, CA (619) 233-1454

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|--------------|-----------------------|----------------------|---|--------------|-----|
| NR DATE | KEEPER NR ELIGIBILITY | y | n | DATE | / / |
| | SHPO NR ELIGIBILITY | y | n | DATE | / / |
| DELIST DATE | LOCAL DESIGNATION | | | DATE | / / |
| | Local Office | | | | |

Historical Structure Form Florida Site File

SiteID 8OK1753
Recorder # 6046
Field Date 10/31/01
Form Date 10/31/01

Site Names BUILDING 6046, AIRMEN DORMITORY
Survey Name EGLIN AFB HISTORICAL BUILDING INVENTORY
National Register Category BLDG

MultiList1 _____
Survey # _____

LOCATION and IDENTIFICATION

Address ARMY RANGER CAMP, FLD. 6
Cross Streets _____
Nearest City/Town EGLIN AFB In City Limits No
County: OKALOOSA Tax Parcel #: _____
SubDivision _____ Block _____ Lot No. _____
Ownership FEDE
Name of Public Tract _____
Route To _____

MAPPING

USGS 7.5' Map Names HOLT FL
Township: 2N Range: 25W Section: 34 Irregular Section: _____

UTM: 16 Easting: 524983 Northing: 3388129

Plat or Other Map Name: _____

DESCRIPTION

Style _____ Exterior Plan RECT Num. of Stories 1
Structural Systems SKST
Foundation: Types SLAB Foundation materials: COPO
Exterior Fabrics: PRME
Roof Types/Materials: GABL SKST PRME
Chimney: No. 0 Materials: _____ Locations: _____
Windows (types, materials, and placements): ALUMINUM FRAME
Main Entrance (stylistic details) FLUSH METAL
Porches: #open 0 #closed 0 #incised 0 Location _____
Porches roof types: _____
Exterior Ornament: _____
Internal Plan UNSP Condition: Good
Surroundings (N=None, S=Some, M=Most, A=All or nearly all) N Commercial N Residential A Institute N Rural
Ancillary Features No., type of outbuildings; major landscape features _____
Archaeological Remains At Site Archaeological form completed? _____
Artifacts or other remains _____
Narrative SEE ATTACHED CONTINUATION SHEET

Historical Structure Form Florida Site File

SiteID 8OK1753
Recorder # 6046
Field Date 10/31/01
Form Date 10/31/01

HISTORY

Construction Date 62-70 CIRCA Yes
Architect: (last name first) BUTLER MFG. (ATTRIBUTED)
Builder: (last name first) UNKNOWN
Moves No Dates From Date To Orig. Address
Alterations Yes Dates Date To Nature FENESTRATION AND ENTRIES
Additions No Dates Date To Nature
Original Uses (Give Dates) MILI
Intermediate Uses (Give Dates) MILI
Present Uses (Give Dates) MILI
Ownership History (especially original owner) FEDE

SURVEYOR'S EVALUATION OF SITE

Historical Associations (ethnic heritage, etc.)
SEE ATTACHED CONTINUATION SHEET

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet)

BUILDING 6046 DOES NOT APPEAR TO MEET THE CRITERIA FOR LISTING IN THE NATIONAL REGISTER DUE TO ITS LACK OF DISTINCTIVE HISTORICAL ASSOCIATION AND NON-HISTORIC ALTERATIONS.

CROSS-REFERENCES

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available)

SEE ATTACHED CONTINUATION SHEET

Photographs (REQUIRED) B and W prints 3 x 5, at least one main facade. Label the back of the print with the FSF site number (site name if not available), direction and date of photograph: use pencil. Attach to back of the second to last page with a plastic or coated clip. Location of negatives/neg. Nos.

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| NR DATE | KEEPER NR ELIGIBILITY | DATE | DATE | DATE | DATE |
| / / | SHPO NR ELIGIBILITY | DATE | DATE | DATE | DATE |
| DELIST DATE | LOCAL DESIGNATION | DATE | DATE | DATE | DATE |
| / / | Local Office | | | | |

Site ID 8OK1753
Site Name Building 6046, Airmen Dormitory
Survey Name Eglin AFB Historical Building Inventory

Descriptive Narrative

Building 6046 is a prefabricated dormitory, with components designed and fabricated by the Butler Manufacturing Company. The structure is a one-story dormitory located in the Army Ranger Camp at field 6. Building 6046 features a rectangular footprint, measures 24' by 122'8", and occupies 2,944 square feet. The metal-frame building sits on a raised, concrete perimeter wall foundation, with a concrete slab. The moderately pitched, metal-frame front gable roof is finished in corrugated metal siding. Eaves are boxed with very little overhang. The exterior is clad in pressed metal siding. Windows are aluminum, 2/2 double-hung and aluminum sash and sills. Entries include one single and one double flush-metal door, located at each end of the structure. Concrete pads access the entries. Personnel erected Building 6046 in 1970. The dormitory is identical to Buildings 6043, 6044, and 6045, and may also be identical to Buildings 6021 and 6022. Doors and fenestration are altered.

Historical Associations [Linked to discussions for Buildings 102, 103, 6043, 6044, and 6045]

Exact lineage for Building 6046 remains unknown. The structure is identical in footprint and square footage to five other buildings erected at field 6, Buildings 6021, 6022, 6043, 6044, and 6045. The Air Force is suggested as having used components from Butler buildings of 1952-1958, as well as new prefabricated materials, to erect a Butler structure in ca.1962-1970 (see Building 6043). Army Ranger use of field 6 was akin to a war theater operations site, with the use of prefabricated dormitories to be expected. At nearly this same time, another auxiliary airfield at Eglin, field 2, had served as a testing location for four prototype prefabricated dormitories as a part of project Concrete Blue. The 560th Civil Engineering Squadron erected the 80-man pre-engineered dormitories for Tactical Air Command during 1967-1968, with the intention that the selected dormitory would be truly "relocatable." Goals for prefabricated dormitories included ease of shipment and erection, as well as the capability to dismantle the structures for reshipment and subsequent use at a new location. Also known as the Modular Relocatable Troop Accommodations (MRTA), these prefabricated dormitories fulfilled urgent needs for billeting in Vietnam, Korea, Thailand, the Philippines, and Turkey—also shipped and erected on American Air Force bases with pressing circumstances. Manufacturers of the field 2 dormitories at Eglin were Modulux Incorporated, Custom House Camp Buildings, and National Mobile Leasing Incorporated. Like Butler dormitories, those of the relocatable program were steel frame in type, but featured more ephemeral exterior sheathing of plywood, fiberglass, and treated, honeycombed paper paneling. The height of the relocatable dormitory concept was during the early 1970s, paralleling the use of Buildings 6021, 6022, 6043, 6044, 6045 and 6046 at field 6. Air Force personnel erected Building 6046 at a total cost of \$5,756.

Bibliographic References

Building 6046, real property card and miscellaneous drawings (particularly, Butler Manufacturing, "Roof Support Angles, Model III Shelter," 26 September 1958), civil engineering, Eglin Air Force Base; *The Military Engineer*, September-October 1952; Stephanie J. Carroll, *Bomarc: The Missile Test and Training Facilities*, July 1999; and, Karen J. Weitze: "Installation Buildup during the Early 1950s" and "Infrastructure, Test, and Evaluation for the Vietnam War and the Middle East," *Eglin Air Force Base, 1931-1991*, January 2001.

Historical Structure Form Florida Site File

SiteID 80K1754
Recorder # 6070
Field Date 10/18/01
Form Date 10/31/01

Site Names BLDG 6070, FIRE SHED

MultiList1

SurveyName EGLIN AFB HISTORICAL BUILDING INVENTORY

Survey #

National Register Category BLDG

LOCATION and IDENTIFICATION

Address ARMY RANGER CAMP, FLD. 6

Cross Streets

Nearest City/Town EGLIN AFB

In City Limits No

County: OKALOOSA

Tax Parcel #:

SubDivision

Block

Lot No.

Ownership FEDE

Name of Public Tract

Route To

MAPPING

USGS 7.5' Map Names HOLT

FL

Township: 2N

Range: 25W

Section:

34

Irregular

Section:

UTM: 16

Easting:

524876

Northing:

3388122

Plat or Other Map Name:

DESCRIPTION

Style

ExteriorPlan RECT

Num. of Stories 1

Structural Systems WOOD

Foundation: Types SLAB

Foundation materials: COPO

ExteriorFabrics: SDW

Roof Types/Materials: SHED

WOOD

CROL

Chimney: No. 0

Materials:

Locations:

Windows (types, materials, and placements): METAL FRAME

Main Entrance (stylistic details) 4 GARAGE-TYPE

Porches: #open 0

closed 0

incised 0

Location

Porches roof types:

Exterior Ornament:

Internal Plan UNSP

Condition: Fair

Surroundings (N=None, S=Some, M=Most, A=All or nearly all)

N

Commercial

N

Residential

A

Institute

N

Rural

Ancillary Features No., type of outbuildings; major landscape features

Archaeological Remains At Site Archaeological form completed?

Artifacts or other remains

Narrative SEE ATTACHED CONTINUATION SHEET

Historical Structure Form Florida Site File

SiteID 8OK1754
Recorder # 6070
Field Date 10/16/01
Form Date 10/31/01

HISTORY

Construction Date 1952 CIRCA No
Architect: (last name first) UNKNOWN
Builder: (last name first) UNKNOWN
Moves No Dates From Date To Orig. Address
Alterations No Dates Date To Nature
Additions Yes Dates Date To Nature
Original Uses (Give Dates) MILI
Intermediate Uses (Give Dates) MILI
Present Uses (Give Dates) MILI
Ownership History (especially original owner) FEDE

SURVEYOR'S EVALUATION OF SITE

Historical Associations (ethnic heritage, etc.)
SEE ATTACHED CONTINUATION SHEET

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet)

BUILDING 6070 DOES NOT APPEAR TO MEET THE CRITERIA FOR LISTING IN THE NATIONAL REGISTER DUE TO ITS COMMON DESIGN, LACK OF DISTINCTIVE HISTORICAL ASSOCIATION, AND NON-HISTORIC ALTERATIONS.

CROSS-REFERENCES

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available)

SEE ATTACHED CONTINUATION SHEET

Photographs (REQUIRED) B and W prints 3 x 5, at least one main facade. Label the back of the print with the FSF site number (site name if not available), direction and date of photograph: use pencil. Attach to back of the second to last page with a plastic or coated clip. Location of negatives/neg. Nos.

EAFB

RECORDER

Name (last first) / Address / Phone / Affiliation EDAW, Inc. San Diego, CA (619) 233-1454

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|--------------|-----------------------|----------------------|--------------|--|
| NR DATE | KEEPER NR ELIGIBILITY | y n p e u | DATE | |
| | SHPO NR ELIGIBILITY | y n p e u | DATE | |
| DELIST DATE | LOCAL DESIGNATION | | DATE | |
| | Local Office | | | |

APPENDIX B

FEDERAL AGENCY COASTAL ZONE MANAGEMENT ACT (CZMA) CONSISTENCY DETERMINATION

**FEDERAL AGENCY COASTAL ZONE MANAGEMENT ACT (CZMA)
NEGATIVE DETERMINATION**

Introduction

This document provides the State of Florida with the U.S. Air Force's Negative Determination under Section 307 of the Coastal Zone Management Act, 16 U.S.C. § 1456, and 15 C.F.R. Part 930.35. The information in this Negative Determination is provided pursuant to 15 C.F.R. Section 930.35 (b).

Proposed Federal agency action:

The Proposed Action is to initiate activities under the Ranger Training Brigade (RTB) Recapitalization Master Plan for the 6th Ranger Training Battalion (6th RTB) at Camp James Rudder on Eglin Air Force Base (AFB) (Figures 1 and 2). These activities would include the following:

- Construction of five pre-fabricated metal buildings
- Replacement of the gymnasium
- Renovation of the student and cadre barracks
- Construction of a consolidated Company Operations Facility
- Construction of a consolidated Maintenance and Storage Facility
- Infrastructure needed to support daily operation (includes utility line connections to the buildings)
- Demolition of buildings 6016, 6018, 6022, 6024, 6030, 6034, 6041, 6042, 6043, 6045, 6046, 6044, and 6070

The demolition of existing buildings encompasses 38,070 square feet. The Ranger Training Brigade is the proponent of the action, and the Air Force is the cooperating agency.

Federal Consistency Review

After review of the Florida Coastal Management Program and its enforceable policies, the U.S. Air Force has made a Negative Determination that this activity is one that will not have an affect on the State of Florida coastal zone or its resources.

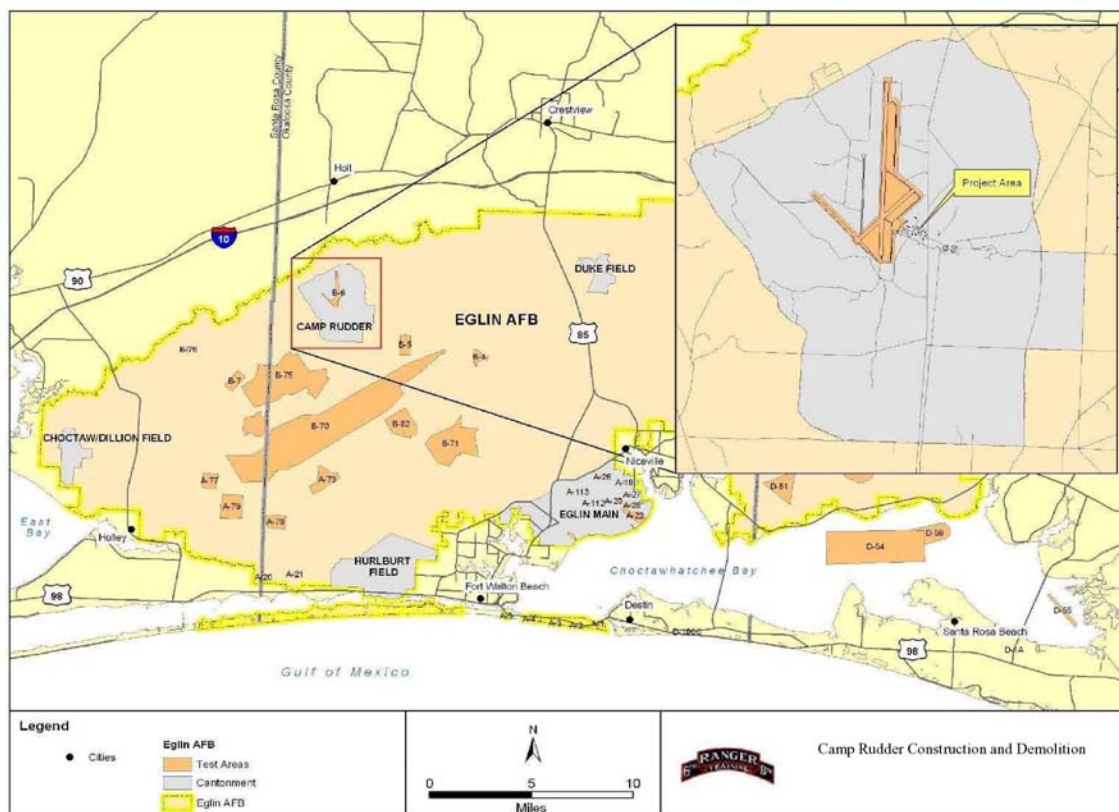


Figure 1 Regional Setting of the Proposed Action, Eglin AFB, FL

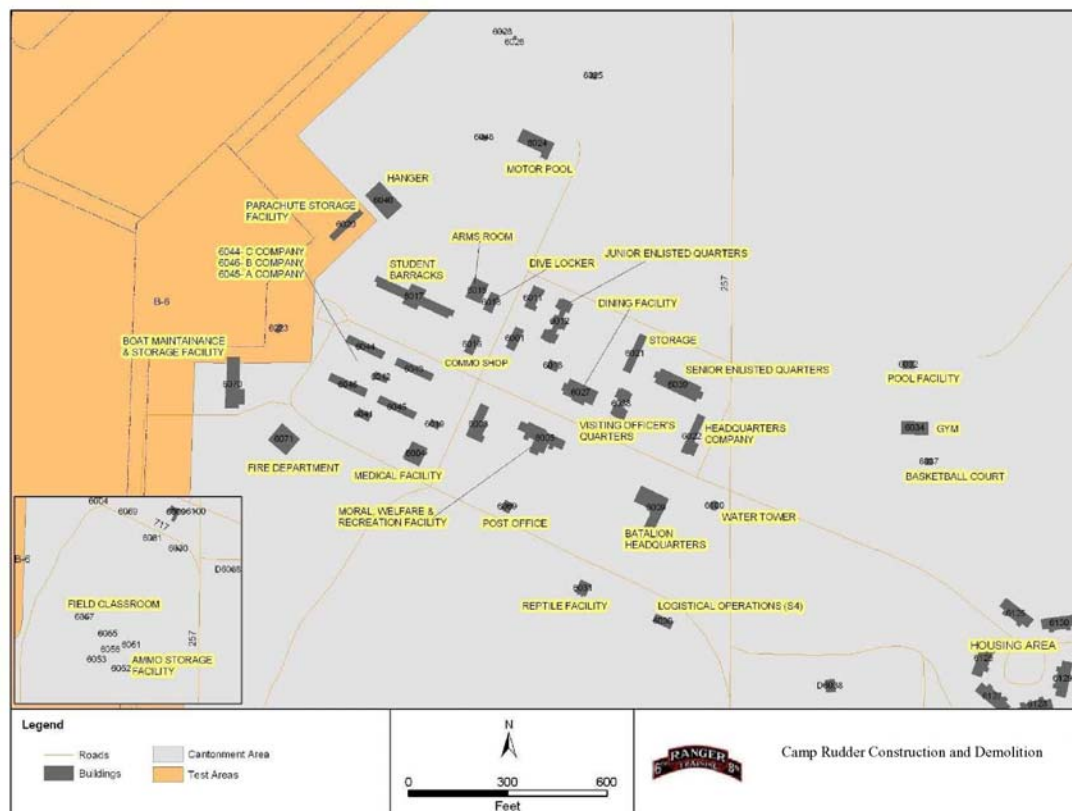


Figure 2 Camp Rudder Buildings and Facilities

Florida Coastal Management Program Consistency Review

| Statute | Consistency | Scope |
|--|---|--|
| Chapter 161 <i>Beach and Shore Preservation</i> | The proposed project would not adversely affect beach and shore management, specifically as it pertains to: -The Coastal Construction Permit Program. -The Coastal Construction Control Line (CCCL) Permit Program. -The Coastal Zone Protection Program. All activities would occur on federal property. | Authorizes the Bureau of Beaches and Coastal Systems within DEP to regulate construction on or seaward of the states' beaches. |
| Chapter 163, Part II <i>Growth Policy: County and Municipal Planning; Land Development Regulation</i> | All activities would occur on federal property. | Requires local governments to prepare, adopt, and implement comprehensive plans that encourage the most appropriate use of land and natural resources in a manner consistent with the public interest. |
| Chapter 186 <i>State and Regional Planning</i> | All activities would occur on federal property. | Details state-level planning requirements. Requires the development of special statewide plans governing water use, land development, and transportation. |
| Chapter 252 <i>Emergency Management</i> | The proposed action would not increase the state's vulnerability to natural disasters. Emergency response and evacuation procedures would not be impacted by the proposed action. | Provides for planning and implementation of the state's response to, efforts to recover from, and the mitigation of natural and manmade disasters. |
| Chapter 253 <i>State Lands</i> | All activities would occur on federal property. | Addresses the state's administration of public lands and property of this state and provides direction regarding the acquisition, disposal, and management of all state lands. |
| Chapter 258 <i>State Parks and Preserves</i> | State parks, recreational areas and aquatic preserves would not be affected by the proposed action. Construction would not occur within any aquatic preserves. Tourism and outdoor recreation would not be affected. | Addresses administration and management of state parks and preserves (Chapter 258). |
| Chapter 259 <i>Land Acquisition for Conservation or Recreation</i> | | Authorizes acquisition of environmentally endangered lands and outdoor recreation lands (Chapter 259). |
| Chapter 260 <i>Recreational Trails System</i> | | Authorizes acquisition of land to create a recreational trails system and to facilitate management of the system (Chapter 260). |

| | | |
|---|---|---|
| Chapter 375 <i>Multipurpose Outdoor Recreation; Land Acquisition, Management, and Conservation</i> | Opportunities for recreation on state lands would not be affected. | Develops comprehensive multipurpose outdoor recreation plan to document recreational supply and demand, describe current recreational opportunities, estimate need for additional recreational opportunities, and propose means to meet the identified needs (Chapter 375). |
| Chapter 267 <i>Historical Resources</i> | Cultural resource impacts were eliminated as a potential issue in the Environmental Assessment since there are no known cultural resources at the site. Any new resources discovered would be immediately reported to Eglin's Cultural Resource Division (96 CEG/CEVH). | Addresses management and preservation of the state's archaeological and historical resources. |
| Chapter 288 <i>Commercial Development and Capital Improvements</i> | The proposed action would occur on federal property. The proposed action is not anticipated to have any effect on future business opportunities on state lands, or the promotion of tourism in the region. | Provides the framework for promoting and developing the general business, trade, and tourism components of the state economy. |
| Chapter 334 <i>Transportation Administration</i> | The proposed project would not have an impact on state transportation administration. | Addresses the state's policy concerning transportation administration (Chapter 334). |
| Chapter 339 <i>Transportation Finance and Planning</i> | The proposed project would have no effect on the finance and planning needs of the state's transportation system. | Addresses the finance and planning needs of the state's transportation system (Chapter 339). |
| Chapter 370 <i>Saltwater Fisheries</i> | The proposed action would not affect saltwater fisheries. | Addresses management and protection of the state's saltwater fisheries. |
| Chapter 372 <i>Wildlife</i> | There are no issues with biological resources at the proposed project site that require analysis; no sensitive species or habitats have been identified. Construction would take place in cleared portions of the site, and natural vegetation removal would be minimal, therefore, no negative impacts to wildlife are anticipated as a result of the proposed action. | Addresses the management of the wildlife resources of the state. |
| Chapter 373 <i>Water Resources</i> | There are no wetlands or floodplains within or adjacent to the construction site. Impervious surface area would increase resulting in an increase in stormwater runoff. Given the scope of the project, a NPDES General Permit for stormwater discharge (F.A.C. 62-621) and a Stormwater Facility Design and construction Permit would be required. | Addresses the state's policy concerning water resources. |
| Chapter 376 <i>Pollutant Discharge Prevention and Removal</i> | The 6th RTB would generate hazardous materials in the form of weapons cleaning products and wastes. Personnel would properly identify, separate, label, store, and discard all hazardous wastes in accordance with applicable federal, state, and Air Force regulations. | Regulates transfer, storage, and transportation of pollutants, and cleanup of pollutant discharges. |
| Chapter 377 <i>Energy Resources</i> | Energy resource production, including oil and gas, and the transportation of oil and gas, would not be affected by the proposed action. | Addresses regulation, planning, and development of energy resources of the state. |
| Chapter 380 <i>Land and Water Management</i> | The proposed action would occur on federally owned lands. Under the proposed action, development of state lands with regional (i.e. more than one county) impacts would not occur. Areas of Critical State Concern or areas with approved state resource management plans such as the Northwest Florida Coast would not be affected. Changes to coastal infrastructure such as bridge construction, capacity increases of existing coastal infrastructure, or use of state funds for infrastructure planning, designing or construction would not occur. | Establishes land and water management policies to guide and coordinate local decisions relating to growth and development. |
| Chapter 381 <i>Public Health, General Provisions</i> | The proposed action does not involve the construction of an on-site sewage treatment and disposal system. Stormwater and wastewater permits would be coordinated with Eglin AFB, Environmental Management, Environmental Compliance (96 CEG/CEVC). | Establishes public policy concerning the state's public health system. |
| Chapter 388 <i>Mosquito Control</i> | The proposed action would not affect mosquito control efforts. | Addresses mosquito control effort in the state. |
| Chapter 403 <i>Environmental Control</i> | The proposed action would not affect ecological systems and water quality of state waters. Air quality could be affected by the addition of combustive by-products and dust to the air resulting from construction and land clearing. Revisions would be made to the Eglin Title V permit to reflect changes, if any, to the numbers of boilers and emergency generators installed at Camp Rudder. During ground-disturbing and construction activities, reasonable precautions would be taken to control dust emissions and unconfined particulate matter. | Establishes public policy concerning environmental control in the state. |

| | | |
|---|---|--|
| Chapter 582 <i>Soil and Water Conservation</i> | A design and construction permit in accordance with Rule 62-25 Florida Administrative Code (FAC) would be required due to the increase in impervious surface area created by the construction and structures associated with Camp Rudder. A Notice of Intent to Use the General Permit for New Stormwater Discharge Facility Construction must be submitted prior to project initiation according to the Rule 62-25 FAC. The Proposed Action requires coverage under the Generic Permit for Stormwater Discharge from Construction Activities that Disturb One or More Acres of Land (62-621 FAC). A Stormwater, Erosion, and Sedimentation Control Plan, a Stormwater Pollution Prevention Plan (SWPPP), and construction Best Management Practices (BMPs) would be incorporated into the construction process | Provides for the control and prevention of soil erosion. |
|---|---|--|

Atchison William P Contr 96 CEG/CEVSN

From: Milligan, Lauren [Lauren.Milligan@dep.state.fl.us]
Sent: Thursday, May 05, 2005 11:02 AM
To: Atchison William P Contr 96 CEG/CEVSN
Cc: Lawson, Daniel; Miller Bob Civ 96 CEG/CEVSNW
Subject: RE: Negative Determination for Demolition and Construction at Camp Rudder

Mr. William P. Atchison
Eglin AFB - 96 CEG/CEVSN
107 Highway 85 North
Niceville, FL 32578

RE: Department of the Air Force - Negative Determination - Demolition and Construction Activities at Camp Rudder - Okaloosa County, Florida.
SAI # FL200505050802

Dear Bill:

The Florida State Clearinghouse is in receipt of your notice regarding the U.S. Air Force's proposal to initiate activities under the Ranger Training Brigade Recapitalization Master Plan for the 6th Ranger Training Battalion at Camp James Rudder on Eglin Air Force Base. Department staff does not object to the Air Force's negative determination and agrees that the proposed action meets the requirements of 15 CFR 930.35.

As noted in the documents submitted, the proposed building demolition and construction activities may require issuance of a stormwater permit and NPDES permit in accordance with Rules 62-25 and 62-621, Florida Administrative Code. The Air Force is advised to contact Mr. Cliff Street, Stormwater Permit Engineer, at the DEP Northwest District Office in Pensacola at (850) 595-8300 and the NPDES Stormwater Section in Tallahassee at (850) 245-7522, to discuss these permitting requirements.

Thank you for the opportunity to review this proposal. If you have any questions or need further assistance, please contact me at (850) 245-2170.

Sincerely,

Lauren P. Milligan, Environmental Consultant
Florida State Clearinghouse
Florida Department of Environmental Protection
3900 Commonwealth Blvd, Mail Station 47
Tallahassee, Florida 32399-3000
ph. (850) 245-2170
fax (850) 245-2190

-----Original Message-----

From: Atchison William P Contr 96 CEG/CEVSN [mailto:william.atchison@eglin.af.mil]
Sent: Friday, April 29, 2005 12:43 PM
To: Milligan, Lauren
Cc: Lawson, Daniel; Miller Bob Civ 96 CEG/CEVSNW
Subject: Negative Determination for Demolition and Construction at Camp Rudder

5/5/2005

Ms. Lauren P. Milligan, Environmental Consultant
Florida State Clearinghouse
Florida Department of Environmental Protection
3900 Commonwealth Boulevard, Mail Station 47
Tallahassee, FL 32399-4700

Dear Lauren,
Attached is the US Air Force's proposal for demolition and construction activities at Camp Rudder, Eglin AFB, FL. We are submitting this CZMA Negative Determination under 15 C.F.R. 930.35. Please consider a five-day review period on this project and a response via e-mail.
If you require additional information or have any questions or concerns, I can be reached at (850)883-1154.

Many thanks,

5/5/2005

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APPENDIX C

PHOTOGRAPHS OF EXISTING STRUCTURES AND PROPOSED CONSTRUCTION SITES



Existing Communications Shop – Building 6016



Student Barracks – Building 6017



Existing Dive Locker – Building 6018



Proposed Site for New Dive Locker



Existing Vehicle Maintenance Shop – Building 6024



Proposed Site for New Vehicle Maintenance Shop



NCO Quarters – Building 6039



Existing Latrine – Building 6042 and Existing Administration Building – Building 6044



Existing Boathouse – Building 6070



Proposed Site for New Controlled Environment Storage Facility (Boat House)



Proposed Site for New Consolidated Company Operations Facility



Proposed Site for New Head Quarters Company HHC CP



Existing S-4 Shop – Building 6030



Proposed Site for New S-4 Shop Administration Office



Proposed Site for New Motor Pool Storage Facility

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APPENDIX D

HAZARDOUS MATERIALS AND WASTE

TOXICITY ASSESSMENT OF ASBESTOS AND LEAD-BASED PAINT

Asbestos is a mineral composed of silicon, oxygen, and hydrogen, as well as various metal cations (positively charged metal ions). Many varieties of asbestos exist; however, the three most common forms are chrysotile, amosite, and crocidolite. Unlike most minerals that turn into dust particles when crushed, asbestos breaks up into fine fibers that are too small to be seen by the human eye. Often individual fibers are mixed with a material that binds them together, thereby producing asbestos-containing material (Mesothelioma-Net, 2003).

Exposure to asbestos typically occurs through inhalation when fibers are in the air. Because the fibers are small and light, they can stay in the air for long periods of time. People who have frequent contact with asbestos, such as workers who renovate buildings that contain this material, may inhale fibers. The amount of asbestos a worker is exposed to will vary according to:

- The concentration of fibers in the air.
- The duration of exposure.
- The worker's breathing rate (workers doing manual labor breathe faster).
- The weather condition.
- The protective devices the worker wears.

When asbestos fibers are inhaled, they can easily penetrate body tissues. They may also be deposited and retained in the airways and lung tissue. Asbestos related diseases, however, may not appear until years after exposure. Table D-1 summarizes the primary chronic illnesses associated with asbestos exposure.

Table D-1. Asbestos-Related Illnesses

| Type of Disease | Symptoms | Risk Factors | Treatment |
|---|---|---|---|
| Asbestosis is a chronic, non-cancerous respiratory disease caused by inhalation of asbestos fibers that scar the lung tissue. | Shortness of breath and a dry crackling sound in the lungs. | Minimal for those not exposed to asbestos. Significant for those renovating or demolishing buildings that contain asbestos. | No effective treatment. |
| Lung cancer causes the largest number of deaths related to asbestos exposure. | Coughing, a change in breathing, shortness of breath, persistent chest pains, and anemia. | People who have been exposed to asbestos as well as another carcinogen, cigarettes for example, are 90 times more likely to develop lung cancer. | Radiation and chemotherapy. Poor prognosis. |
| Mesothelioma is a rare form of cancer that most often occurs in the thin membrane lining of the lungs, chest, abdomen, and heart. | Shortness of breath, chest pain, and/or persistent cough. Some people show no symptoms. | Approximately 2 percent of all miners and textile workers who work with asbestos, and 10 percent of all workers who were involved in the manufacture of asbestos-containing gas masks, contract mesothelioma. | Surgery, chemotherapy, and radiation treatment. |

Source, Mesothelioma-Net, 2003

Lead-Based Paint

Since the 1970s, the federal government has taken several steps to reduce the risks associated with lead exposure. Steps include limiting the amount of lead in house paint to less than 0.06 percent, banning the use of lead in the solder and pipes used in public drinking water systems, and removing lead from gasoline.

Adverse health effects from lead exposure to both adults and children include those to the nervous system, brain, and kidneys. Chronic (long-term) exposure of adults to lead in the workplace has resulted in decreased performance in some tests that measure functions of the nervous system. Lead exposure may also cause weakness in fingers, wrists, or ankles. Some studies in humans have suggested that lead exposure may increase blood pressure and may cause a reduction in the number of blood cells (anemia). At high levels of exposure, lead can severely damage the brain and kidneys in adults and children. In pregnant women, high levels of exposure to lead may cause miscarriage. High-level exposure in men can damage the organs responsible for sperm production (ATSDR, 1999).

Children are more sensitive to the effects of lead than adults. Children who ingest lead-based paint chips or who breathe lead particles may develop blood anemia, kidney damage, colic, muscle weakness, and brain damage, which can potentially cause death (ATSDR, 1999). Exposure to low levels of lead over time can affect a child's mental and physical growth. Fetuses exposed to lead in the womb may be born prematurely and have lower weights at birth. Exposure in the womb, during infancy, or in early childhood may also slow mental development and lower intelligence levels later in childhood, and effects may persist into adulthood (ATSDR, 1999).

References:

- Agency for Toxic Substances and Disease Registry (ATSDR), 1999. Toxic FAQs for Lead. <http://www.atsdr.cdc.gov/tfacts13.html>.
- Mesothelioma-Net, 2003. Mesothelioma and Asbestos FAQ. <http://www.mesothelioma-net.org>.

APPENDIX E

AIR QUALITY

AIR QUALITY

This appendix presents an overview of the Clean Air Act (CAA) and the State of Florida air quality program. The appendix also discusses emission factor development and calculations including assumptions employed in the air quality analyses presented in the Air Quality sections of Chapters 3 and 4.

AIR QUALITY PROGRAM OVERVIEW

In order to protect public health and welfare, the U.S. Environmental Protection Agency (USEPA) has developed numerical concentration-based standards or National Ambient Air Quality Standards (NAAQS) for six “criteria” pollutants (based on health related criteria) under the provisions of the Clean Air Act Amendments of 1970. There are two kinds of NAAQS: Primary and Secondary standards. Primary standards prescribe the maximum permissible concentration in the ambient air to protect public health including the health of “sensitive” populations such as asthmatics, children, and the elderly. Secondary standards prescribe the maximum concentration or level of air quality required to protect public welfare including protection against decreased visibility, damage to animals, crops, vegetation, and buildings (40 Code of Federal Regulations, Part 50 [40 CFR 50]).

The CAA gives states the authority to establish air quality rules and regulations. These rules and regulations must be equivalent to, or more stringent than, the federal program. The Division of Air Resource Management within the Florida Department of Environmental Protection (FDEP) administers the state’s air pollution control program under authority of the Florida Air and Water Pollution Control Act and the Environmental Protection Act.

Florida has adopted the NAAQS except for sulfur dioxide (SO₂). The USEPA has set the annual and 24-hour standards for SO₂ at 0.03 parts per million (ppm) (80 micrograms per cubic meter [$\mu\text{g}/\text{m}^3$]) and 0.14 ppm (365 $\mu\text{g}/\text{m}^3$) respectively. Florida has adopted the more stringent annual and 24-hour standards of 0.02 ppm (60 $\mu\text{g}/\text{m}^3$) and 0.1 ppm (260 $\mu\text{g}/\text{m}^3$) respectively. In addition, Florida has adopted the national secondary standard of 0.50 ppm (1300 $\mu\text{g}/\text{m}^3$). Federal and State of Florida ambient air quality standards are presented in Table E-1 (Florida Administrative Code [FAC] 62-204.240 (1)(a-b)).

Based on measured ambient air pollutant concentrations, the USEPA designates areas of the United States as “attainment” (air quality better than the NAAQS), “nonattainment” (air quality worse than the NAAQS), and “unclassifiable.” Those that cannot be classified on the basis of available information as meeting or not meeting the NAAQS for a particular pollutant are “unclassifiable” and are treated as attainment until proven otherwise. Attainment areas can be further classified as “maintenance” areas. Maintenance areas are those areas previously classified as nonattainment that have successfully reduced air pollutant concentrations below the standard thresholds. Maintenance areas are under special maintenance plans and must operate under some of the nonattainment area plans to ensure compliance with the NAAQS. All areas of the state of Florida are in compliance with the NAAQS.

Table E-1. National and State Ambient Air Quality Standards

| Criteria Pollutant | Averaging Time | Federal Primary NAAQS^{1,2,3} | Federal Secondary NAAQS^{1,2,4} | Florida Standards |
|--|--|--|--|--|
| Carbon Monoxide (CO) | 8-hour 1-hour | 9 ppm ⁵ (10 mg/m ³) ⁶ 35 ppm (40 mg/m ³) | No standard No standard | 9 ppm (10 µg/m ³) ⁷ 35 ppm (40 µg/m ³) |
| Lead (Pb) | Quarterly | 1.5 µg/m ³ | 1.5 µg/m ³ | 1.5 µg/m ³ |
| Nitrogen Dioxide (NO ₂) | Annual | 0.053 ppm (100 µg/m ³) | 0.053 ppm (100 µg/m ³) | 0.053 ppm (100 µg/m ³) |
| Ozone (O ₃) | 1-hour ⁸ 8-hour ⁹ | 0.12 ppm (235 µg/m ³) 0.08 ppm (157 µg/m ³) | 0.12 ppm (235 µg/m ³) 0.08 ppm (157 µg/m ³) | 0.12 ppm (235 µg/m ³) 0.08 ppm (157 µg/m ³) |
| Particulate Matter ≤10 Micrometers (PM ₁₀) | Annual 24-hour ¹⁰ | 50 µg/m ³ 150 µg/m ³ | 50 µg/m ³ 150 µg/m ³ | 50 µg/m ³ 150 µg/m ³ |
| Particulate Matter ≤2.5 Micrometers (PM _{2.5}) | Annual 24-hour ¹¹ | 15 µg/m ³ 65 µg/m ³ | 15 µg/m ³ 65 µg/m ³ | 15 µg/m ³ 65 µg/m ³ |
| Sulfur Dioxide (SO ₂) | Annual 24-hour 3-hour | 0.03 ppm (80 µg/m ³) 0.14 ppm (365 µg/m ³) No standard | No standard No standard 0.50 ppm (1300 µg/m ³) | 0.02 ppm (60 µg/m ³) 0.10 ppm (260 µg/m ³) 0.50 ppm (1300 µg/m ³) |

Source: Florida Department of Environmental Protection, 2000

1. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year.
2. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury; ppm refers to parts per million by volume.
3. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
4. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
5. ppm = parts per million
6. mg/m³ = milligrams per cubic meter
7. µg/m³ = micrograms per cubic meter
8. The ozone one-hour standard still applies to areas that were designated nonattainment when the ozone eight-hour standard was adopted in July 1997. The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than 1 averaged over a three-year period.
9. The 8-hour ozone standard is attained when the 3-year average of the annual fourth-highest daily maximum 8-hour average is not greater than 0.08 ppm.
10. The PM₁₀ 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
11. The PM_{2.5} 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

Each state is required to develop a state implementation plan (SIP) that sets forth how CAA provisions will be imposed within the state. The SIP is the primary means for the implementation, maintenance, and enforcement of the measures needed to attain and maintain

the NAAQS within each state and includes control measures, emissions limitations, and other provisions required to attain and maintain the ambient air quality standards. The purpose of the SIP is twofold. First, it must provide a control strategy that will result in the attainment and maintenance of the NAAQS. Second, it must demonstrate that progress is being made in attaining the standards in each nonattainment area.

In attainment areas, major new or modified stationary sources of air emissions on and in the area are subject to Prevention of Significant Deterioration (PSD) review to ensure that these sources are constructed without causing significant adverse deterioration of the clean air in the area. A major new source is defined as one that has the potential to emit any pollutant regulated under the CAA in amounts equal to or exceeding specific major source thresholds: 100 or 250 tons per year based on the source's industrial category. A major modification is a physical change or change in the method of operation at an existing major source that causes a significant "net emissions increase" at that source of any regulated pollutant. Table E-2 provides a tabular listing of the PSD significant emissions rate (SER) thresholds for selected criteria pollutants (USEPA, 1990).

The goal of the PSD program is to: 1) ensure economic growth while preserving existing air quality, 2) protect public health and welfare from adverse effects that might occur even at pollutant levels better than the NAAQS, and 3) preserve, protect, and enhance the air quality in areas of special natural recreational, scenic, or historic value, such as national parks and wilderness areas. Sources subject to PSD review are required by the CAA to obtain a permit before commencing construction. The permit process requires an extensive review of all other major sources within a 50-mile radius and all Class I areas within a 62-mile radius of the facility. Emissions from any new or modified source must be controlled using Best Available Control Technology. The air quality, in combination with other PSD sources in the area, must not exceed the maximum allowable incremental increase identified in Table E-3. National parks and wilderness areas are designated as Class I areas, where any appreciable deterioration in air quality is considered significant. Class II areas are those where moderate, well-controlled industrial growth could be permitted. Class III areas allow for greater industrial development. The areas surrounding Eglin Air Force Base and Hurlburt Field are classified as Class II. Currently there are no designated Class III areas in the United States.

Table E-2. Criteria Pollutant Significant Emissions Rate Increases Under PSD Regulations

| Pollutant | Significant Emissions Rate (tons/year) |
|-----------------------------------|---|
| PM ₁₀ | 15 |
| Total Suspended Particulate (TSP) | 25 |
| SO ₂ | 40 |
| NO _x | 40 |
| Ozone (VOC) | 40 |
| CO | 100 |

Source: Title 40 CFR Part 51

Table E-3. Federal Allowable Pollutant Concentration Increases Under PSD Regulations

| Pollutant | Averaging Time | Maximum Allowable Concentration ($\mu\text{g}/\text{m}^3$) | | |
|------------------|----------------|--|----------|-----------|
| | | Class I | Class II | Class III |
| PM ₁₀ | Annual | 4 | 17 | 34 |
| | 24-hour | 8 | 30 | 60 |
| SO ₂ | Annual | 2 | 20 | 40 |
| | 24-hour | 5 | 91 | 182 |
| | 3-hour | 25 | 512 | 700 |
| NO ₂ | Annual | 2.5 | 25 | 50 |

Source: Title 40 CFR Part 51

 $\mu\text{g}/\text{m}^3$ = Micrograms per cubic meter

Florida has a statewide air quality-monitoring network that is operated by both state and local environmental programs (FDEP, 2003). The air quality is monitored for carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. The monitors tend to be concentrated in areas with the largest population densities. Not all pollutants are monitored in all areas. The air quality monitoring network is used to identify areas where the ambient air quality standards are being violated and plans are needed to reduce pollutant concentration levels to be in attainment with the standards; also included are areas where the ambient standards are being met but plans are necessary to ensure maintenance of acceptable levels of air quality in the face of anticipated population or industrial growth.

The end-result of this attainment/maintenance analysis is the development of local and statewide strategies for controlling emissions of criteria air pollutants from stationary and mobile sources. The first step in this process is the annual compilation of the ambient air monitoring results, and the second step is the analysis of the monitoring data for general air quality, exceedances of air quality standards, and pollutant trends.

The FDEP Northwest District operates monitors in several counties, including Bay, Escambia, Holmes, Leon, Santa Rosa, and Wakulla Counties. Over the years of record there have been exceedances (pollutant concentration greater than the numerical standard) of a NAAQS. However, there has not been a violation (occurrence of more exceedances of the standard than is allowed within a specified time period) of an ambient standard (FDEP, 2003).

PROJECT CALCULATIONS

Construction Emissions:

Construction emissions calculations were completed using the calculation methodologies described in the U.S. Air Force Air Conformity Applicability Model (ACAM). A conformity determination is not required since Okaloosa County is designated "attainment," the ACAM was used to provide a level of consistency with respect to emissions factors and calculations.

The ACAM evaluates the individual emissions from different sources associated with the construction phases. These sources include grading activities, asphalt paving, construction worker trips, stationary equipment (e.g., saws and generators), architectural coatings, and mobile equipment emissions (U.S. Air Force, 2003).

Grading Activities:

Grading activities are divided into grading equipment emissions and grading operation emissions. Grading equipment calculations are combusive emissions from equipment engines and are ascertained in the following manner.

$$\begin{aligned}\text{VOC} &= .22 \text{ (lbs/acre/day)} * \text{Acres} * \text{DPY}_1 / 2000 \\ \text{NO}_x &= 2.07 \text{ (lbs/acre/day)} * \text{Acres} * \text{DPY}_1 / 2000 \\ \text{PM}_{10} &= .17 \text{ (lbs/acre/day)} * \text{Acres} * \text{DPY}_1 / 2000 \\ \text{CO} &= .55 \text{ (lbs/acre/day)} * \text{Acres} * \text{DPY}_1 / 2000 \\ \text{SO}_2 &= .21 \text{ (lbs/acre/day)} * \text{Acres} * \text{DPY}_1 / 2000\end{aligned}$$

Where:

$$\begin{aligned}\text{Acres} &= \text{number of gross acres to be graded during Phase I construction} \\ \text{DPY}_1 &= \text{number of days per year during Phase I construction which are used for grading} \\ 2000 &= \text{conversion factor from pounds to tons}\end{aligned}$$

All emissions are represented as tons per year.

Grading operations are calculated using a similar equation from the Sacramento Metropolitan Air Quality Management District (SMAQMD) and the South Coast Air Quality Management Districts (SCAQMD) (SMAQMD, 1994 and SCAQMD, 1993). These calculations include grading and truck hauling emissions.

$$\text{PM}_{10} \text{ (tons/yr)} = 60.7 \text{ (lbs/acre/day)} * \text{Acres} * \text{DPY}_1 / 2000$$

Where:

$$\begin{aligned}\text{Acres} &= \text{number of gross acres to be graded during Phase I construction} \\ \text{DPY}_1 &= \text{number of days per year during Phase I construction which are used for grading} \\ 2000 &= \text{conversion factor from pounds to tons}\end{aligned}$$

Calculations assumed that there were no controls used to reduce fugitive emissions. Also, it was assumed that construction activities would occur within 182 days and grading activities would represent 10 percent of that total. Therefore, 18 days was the duration established for grading operations. Emissions factors were derived from the Sacramento Air Quality Management District and the South Coast Air Quality Management District (SMAQMD, 1994 and SCAQMD, 1993).

Architectural Coatings:

Architectural coating emissions are released through the evaporation of solvents that are contained in paints, varnishes, primers, and other surface coatings.

$$\text{VOC}_{\text{SF}} \text{ (lbs/yr)} = 65.6 \text{ (lbs/unit)} * \text{Number of Single Family Units}$$

Where:

Number of Single Family Units = total number of single-family units to be constructed in the given year of construction

2000 = conversion factor from pounds to tons

It was assumed that construction activities would occur within 182 days. After subtracting the grading activities from the estimated overall construction time, the actual construction period was reduced to 164 days. Emissions factors were derived from the Sacramento Air Quality Management District and the South Coast Air Quality Management District (SMAQMD, 1994 and SCAQMD, 1993).

Asphalt Paving:

VOC emissions are released during asphalt paving and are calculated using the following methodology.

$$\text{VOC}_{\text{PT}} (\text{tons/yr}) = (2.62 \text{ lbs/acre}) * \text{Acres Paved} / 2000$$

Where:

Acres Paved = total number of acres to be paved at the site.

2000 = conversion factor from pounds to tons

The area of asphalt paving was developed by averaging the miles of roads per acre in military family housing areas on Eglin Air Force Base. The specific emissions factors used in the calculations were available through Sacramento Air Quality Management and the South Coast Air Quality Management Districts (SMAQMD, 1994 and SCAQMD, 1993).

Construction Worker Trips:

Construction worker trips during the construction phases of the project are calculated and represent a function of the number of residential units to be constructed and/or square feet of non-residential construction.

$$\text{Trips (trips/day)} = .72 (\text{trip/unit/day}) * \text{Number of Single Family Units}$$

Total daily trips are the applied to the following factors depending on the corresponding years.

Year 2005 through 2009:

$$\text{VOC}_{\text{E}} = .016 * \text{Trips}$$

$$\text{NO}_{\text{xE}} = .015 * \text{Trips}$$

$$\text{PM}_{10\text{E}} = .0022 * \text{Trips}$$

$$\text{CO}_{\text{E}} = .262 * \text{Trips}$$

Year 2010 and beyond:

$$\text{VOC}_{\text{E}} = .012 * \text{Trips}$$

$$\text{NO}_{x\text{E}} = .013 * \text{Trips}$$

$$\text{PM}_{10\text{E}} = .0022 * \text{Trips}$$

$$\text{CO}_{\text{E}} = .262 * \text{Trips}$$

To convert from pounds per day to tons per year:

$$\text{VOC (tons/yr)} = \text{VOC}_{\text{E}} * \text{DPY}_{\text{II}}/2000$$

$$\text{NO}_x \text{ (tons/yr)} = \text{NO}_{x\text{E}} * \text{DPY}_{\text{II}}/2000$$

$$\text{PM}_{10} \text{ (tons/yr)} = \text{PM}_{10\text{E}} * \text{DPY}_{\text{II}}/2000$$

$$\text{CO (tons/yr)} = \text{CO}_{\text{E}} * \text{DPY}_{\text{II}}/2000$$

Where:

Number of Single Family Units = total number of single-family units to be constructed in the given year of construction

2000 = conversion factor from pounds to tons

DPY_{II} = number of days per year during Phase II construction activities.

Emissions factors were derived from the Sacramento Air Quality Management District and the South Coast Air Quality Management District (SMAQMD, 1994 and SCAQMD, 1993).

Stationary Equipment:

Emissions from stationary equipment occur when gasoline powered equipment (e.g., saws, generators, etc.) is used at the construction site.

$$\text{VOC} = .198 * (\text{RES} + \text{GRSQFT}) * \text{DPY}_{\text{II}}/2000$$

$$\text{NO}_x = .137 * (\text{RES} + \text{GRSQFT}) * \text{DPY}_{\text{II}}/2000$$

$$\text{PM}_{10} = .004 * (\text{RES} + \text{GRSQFT}) * \text{DPY}_{\text{II}}/2000$$

$$\text{CO} = 5.29 * (\text{RES} + \text{GRSQFT}) * \text{DPY}_{\text{II}}/2000$$

$$\text{SO}_2 = .007 * (\text{RES} + \text{GRSQFT}) * \text{DPY}_{\text{II}}/2000$$

Where:

RES = number of residential units to be constructed during Phase II construction.

GRSQF = Gross square feet of non-residential units to be constructed during phase II

DPY_{II} = number of days per year during Phase II construction

2000 = conversion factor from pounds to tons

Emissions factors were derived from the Sacramento Air Quality Management District and the South Coast Air Quality Management District (SMAQMD, 1994 and SCAQMD, 1993).

Mobile Equipment:

Mobile equipment emissions include pollutant releases associated with forklifts, dump trucks, etc. used during Phase II construction.

$$\begin{aligned}\text{VOC} &= .17 * (\text{RES} + \text{GRSQFT}) * \text{DPY}_{\text{II}} / 2000 \\ \text{NO}_x &= 1.86 * (\text{RES} + \text{GRSQFT}) * \text{DPY}_{\text{II}} / 2000 \\ \text{PM}_{10} &= .15 * (\text{RES} + \text{GRSQFT}) * \text{DPY}_{\text{II}} / 2000 \\ \text{CO} &= .78 * (\text{RES} + \text{GRSQFT}) * \text{DPY}_{\text{II}} / 2000 \\ \text{SO}_2 &= .23 * (\text{RES} + \text{GRSQFT}) * \text{DPY}_{\text{II}} / 2000\end{aligned}$$

Where:

RES = number of residential units to be constructed during Phase II construction.

GRSQF = Gross square feet of non-residential units to be constructed during Phase II

DPY_{II} = number of days per year during Phase II construction

2000 = conversion factor from pounds to tons

Emissions factors were derived from the Sacramento Air Quality Management District and the South Coast Air Quality Management District (SMAQMD, 1994 and SCAQMD, 1993).

National Emissions Inventory

The National Emissions Inventory (NEI) is operated under USEPA's Emission Factor and Inventory Group, which prepares the national database of air emissions information with input from numerous state and local air agencies, from tribes, as well as from industry. The database contains information on stationary and mobile sources that emit criteria air pollutants and hazardous air pollutants. The database includes estimates of annual emissions, by source, of air pollutants in each area of the country, on an annual basis. The NEI includes emission estimates for all 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands. Emission estimates for individual point or major sources (facilities), as well as county level estimates for area, mobile and other sources, are available currently for years 1996 and 1999 for criteria pollutants, and hazardous air pollutants.

Criteria air pollutants are those for which EPA has set health-based standards. Four of the six criteria pollutants are included in the NEI database:

- Carbon Monoxide (CO)
- Nitrogen Oxides (NO_x)
- Sulfur Dioxide (SO₂)
- Particulate Matter (PM₁₀ and PM_{2.5})

The NEI also includes emissions of volatile organic compounds (VOCs), which are ozone precursors, emitted from motor vehicle fuel distribution and chemical manufacturing, as well as other solvent uses. VOCs react with nitrogen oxides in the atmosphere to form ozone. The NEI database defines three classes of criteria air pollutant sources:

- Point sources - stationary sources of emissions, such as an electric power plant, that can be identified by name and location. A "major" source emits a threshold amount (or more) of at least one criteria pollutant, and must be inventoried and reported. Many states also inventory and report stationary sources that emit amounts below the thresholds for each pollutant.

- Area sources - small point sources such as a home or office building, or a diffuse stationary source, such as wildfires or agricultural tilling. These sources do not individually produce sufficient emissions to qualify as point sources. Dry cleaners are one example— a single dry cleaner within an inventory area typically will not qualify as a point source, but collectively the emissions from all of the dry cleaning facilities in the inventory area may be significant and therefore must be included in the inventory.
- Mobile sources - any kind of vehicle or equipment with a gasoline or diesel engine, airplane, or ship.

The main sources of criteria pollutant emissions data for the NEI are:

- For electric generating units – USEPA’s Emission Tracking System/Continuous Emissions Monitoring Data (ETS/CEM) and Department of Energy fuel use data.
- For other large stationary sources – state data and older inventories where state data was not submitted.
- For on-road mobile sources – the Federal Highway Administration’s estimate of vehicle miles traveled and emission factors from USEPA’s MOBILE Model.
- For non-road mobile sources – USEPA’s NONROAD Model.
- For stationary area sources – state data, USEPA-developed estimates for some sources, and older inventories where state or USEPA data was not submitted.

State and local environmental agencies supply most of the point source data. USEPA’s Clean Air Market program supplies emissions data for electric power plants.

References:

- Florida Administrative Code (FAC) 62-204.360 (4)(b). *Prevention of Significant Deterioration Areas*; Florida Department of Environmental Protection, March.
- Florida Administrative Code (FAC) 62-204.240 (1)(a-b). *Ambient Air Quality Standards*; Florida Department of Environmental Protection March 1996.
- Florida Department of Environmental Protection (FDEP), 2003. Florida’s Environmental Protection, State Air Monitoring Reports, <http://www.dep.state.fl.us/air/ozone/RollingAttain.asp>; Ad Hoc Air Monitoring Report 2000 – 2004.
- Hiers, S., 2004. Electronic mail communication with Ms. Stephanie Heirs, Environmental Scientist, SAIC; Subject: Miles to acres (Calculation for Asphalt Paving). February.
- Sacramento Metropolitan Air Quality Management District (SMAQMD), 1994. *Air Quality Thresholds of Significance*, December.
- South Coast Air Quality Management District (SCAQMD), 1993. *CEQA Air Quality Handbook*.
- U.S. Air Force, 2003. *U.S. Air Force Air Conformity Applicability Model Technical Documentation*, Air Force Center for Environmental Excellence, May.
- U.S. Environmental Protection Agency, 1990. Draft New Source Review Workshop Manual: Prevention of Significant Deterioration and Nonattainment Permitting, Office of Air Quality Planning and Standards, October.

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APPENDIX F

PUBLIC REVIEW PROCESS

PUBLIC NOTIFICATION

In compliance with the National Environmental Policy Act, Eglin Air Force Base announces the availability of the Draft Environmental Assessment and Finding of No Significant Impact for RCS 01-272, -273, 05-032, -034, -035, -036, -037, -065, -079, -080, -081, -084, -085, and -086, the Camp James E. Rudder Master Plan on Eglin Air Force Base, Florida, for public review.

The Proposed Action is to initiate activities under the Ranger Training Brigade Recapitalization Master Plan for the 6th Ranger Training Battalion at Camp James Rudder on Eglin AFB. These activities include constructing six pre-engineered metal buildings, replacing the gymnasium, renovating the student and cadre barracks, constructing a controlled environment storage facility (boat house), a consolidated Company operations facility and a consolidated maintenance and storage facility. Infrastructure needed to support daily operation includes utility line connections to the buildings and stormwater abatement. The proposed project sites consist of open fields or gravel parking areas. Buildings 6016, 6018, 6019, 6020, 6022, 6024, 6025, 6030, 6034, 6041, 6042, 6043, 6044, 6045, 6046, and 6070 would be demolished. The Proposed Action would bring the total impervious area from new construction to approximately 47,124 square feet (approximately 1 acre). A total of 40,550 square feet would be demolished and 65,030 square feet would be renovated.

Your comments on this Draft EA are requested. Letters or other written or oral comments provided may be published in the Final EA. As required by law, comments will be addressed in the Final Camp Rudder Master Plan EA and made available to the public. Any personal information provided will be used only to identify your desire to make a statement during the public comment period or to fulfill requests for copies of the Final EA or associated documents. Private addresses will be compiled to develop a mailing list for those requesting copies of the Final EA. However, only the names and respective comments of respondent individuals will be disclosed. Personal home addresses and phone numbers will not be published in the Final EA.

Copies of the draft Environmental Assessment and Finding of No Significant Impact may be reviewed at the Fort Walton Beach Public Library, 185 SE Miracle Strip Parkway, Fort Walton Beach, Florida; the Destin Public Library, 150 Siebert Avenue, Destin, Florida; and the Niceville Library, 206 Partin Drive, Niceville, Florida. Copies will be available for review from May 13, 2005, through May 28, 2005. Comments must be received by June 3, 2005. For more information or to comment on the Proposed Action, contact: Mr. Mike Spaits, 96 CEG/CEVPA, 501 De Leon Street, Suite 101, Eglin AFB, FL 32542-5133, or email: spaitsm@eglin.af.mil. Tel: (850) 882-2878. Fax: (850) 882-6284.

578437

MEMO

8 June 2005

FROM: 96th CEG/CEV-PA

TO: CEVSP

**SUBJECT: PUBLIC NOTICE “Camp James E. Rudder Master Plan EA,” Eglin
AFB, Florida**

A public notice was published in the *Northwest Florida Daily News* on May 13th, 2005 to disclose completion of the Draft EA, selection of the preferred alternative, and request comments during the 15-day pre-decisional comment period.

The 15-day comment period ended on May 28th, with the comments required to this office not later than Jun. 3rd, 2005.

No comments were received during this period.

//SIGNED//

Mike Spaits

Public Information Specialist